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July 29, 2013

Ms. Theresa Holz
On-Scene Coordinator
United States Environmental Protection Agency, Region V
77 West Jackson Boulevard, SE-5J
Chicago, IL 60604-3507

Subject: **Becks' Lake Proposed National Priorities List (NPL) Superfund Site**
Assessment of Play Area Surface Soils at LaSalle Park
South Bend, St. Joseph County, Indiana
Technical Direction Document No.: S05-0008-1305-021
Work Order No.: 20405.012.008.2161.00
Document Control No.: 2161-2A- BHRF

Dear Ms. Holz:

Under Technical Direction Document (TDD) No. S05-0008-1305-021, the U. S. Environmental Protection Agency Region V Emergency Response Branch tasked the Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) to conduct site assessment (SA) activities of surface soil in high-exposure playgrounds and fields at the Beck's Lake Proposed Superfund Site in South Bend, St. Joseph County, Indiana (the Site). Due to a lack of data, EPA was concerned that immediate community health concerns about the park's play areas were not able to be addressed prior to completion of a site-wide comprehensive Remedial Investigation and Feasibility Study (RI/FS) if the Proposed Beck's Lake Site NPL designation is finalized. WESTON START conducted the following support activities for the SA:

- Collected soil samples
- Conducted soil screening using an x-ray fluorescence (XRF) instrument
- Conducted data validation and review of soil sample analytical results
- Collected written and photographic documentation of Site conditions and SA activities
- Managed Site-related files and information

This letter report discusses the Site description, Site background, SA objectives and organization, SA activities, laboratory analytical results, the potential for imminent and substantial threats to the public health or welfare of the United States or the environment (potential threats to human health and the environment), and conclusions drawn based on the SA. **Attachment A** of this letter report provides the figures for this report. **Attachment B** provides photographic documentation of Site conditions and SA activities. **Attachment C** provides the site-specific Field Sampling Plan (FSP). **Attachment D** includes tables for this report. **Attachment E** provides the laboratory's full summary of analytical results. **Attachment F** includes the data validation report for the laboratory analytical data.



Ms. Theresa Holz
U.S. Environmental Protection Agency

-2-

Beck's Lake Health Risk SA
July 29, 2013

SITE DESCRIPTION

The Site is located at the intersection of West Washington and North Falcon Streets in South Bend, St. Joseph County, Indiana (**Figure 1** in **Attachment A**). The Site is composed of an approximately 8-acre lake, part of the 40-acre LaSalle Park. LaSalle Park contains a baseball diamond, soccer fields, recreational picnic areas, a parking lot and community center, playground areas with permanent equipment, and a large area that serves as additional green space.

The Site is bordered to the south and west by residential properties, to the north by wooded area and a quarry, and to the east by a light industrial property. The Site's meridian coordinates are 41°40' 34.72" North latitude and 86°17' 27.37" West longitude.

SITE BACKGROUND

In October 2001, the Indiana Department of Environmental Management (IDEM) conducted a Brownfields Environmental Assessment at the Site. The assessment included the collection of six on-site surface soil samples in LaSalle Park, four off-site surface soil samples, three sediment samples from Beck's Lake, three surface water samples from Beck's Lake, and one off-site background surface soil sample. Arsenic was detected in several soil and sediment samples at concentrations ranging from 4.8 to 20.9 milligrams per kilogram (mg/kg). These concentrations exceed the IDEM Risk Integrated System of Closure Residential Default Closure Level for arsenic of 3.9 mg/kg. The 20.9 mg/kg arsenic result was from a single sample collected at a playground in LaSalle Park.

In June 2003, IDEM conducted a Site Reassessment of the Site. During the reassessment, 22 surface soil samples were collected in various locations outside of the park boundaries. Arsenic, lead, and chromium were detected in the samples at concentrations exceeding the site-specific background sample concentrations by three times.

In 2009, IDEM collected six subsurface samples in LaSalle Park and 34 additional soil samples in residential yards south and west of LaSalle Park. The sample analytical results confirmed the elevated metals concentrations from the previous investigations and provided the principal data set for the NPL Proposal. No surface soil samples were collected from LaSalle Park in either 2003 or 2009.

Based on IDEM's findings, the Site was considered a threat to the surrounding community. After inquiry from the City of South Bend, and due to a lack of data, EPA was concerned that it was unable to answer immediate community health concerns about the park's play areas. EPA opened an SA TDD and tasked WESTON START to assist with the SA.



Ms. Theresa Holz
U.S. Environmental Protection Agency

-3-

Beck's Lake Health Risk SA
July 29, 2013

SITE ASSESSMENT OBJECTIVES AND ORGANIZATION

The two main objectives of the SA were to (1) determine the presence and extent of contamination at the Site and (2) determine the potential for imminent and substantial threats to the public health or welfare of the United States or the environment.

The table below summarizes the SA organization.

Agency or Party Involved	Contact	Role
U.S. EPA – Region V Division of Superfund Emergency Response Branch 77 West Jackson Boulevard Chicago, IL 60604	Theresa Holz (312) 886-6845	Federal OSC responsible for SA oversight and success
	Owen Thompson (312) 886-4843	Remedial Project Manager responsible for overall project oversight and success
Weston Solutions, Inc. 750 Bunker Court Vernon Hills, IL 60061	Krista Richardson (847) 918-4066	START project manager responsible for SA support, direction of daily START activities, quality control, documentation, and START-related cost-tracking
Weston Solutions, Inc. 20 North Wacker Drive Suite 1210 Chicago, IL 60606	Jeff Bryniarski (312) 424-3307	START site lead responsible for SA field activities, sample management, and documentation

Note:

OSC = On-Scene Coordinator

SITE ASSESSMENT ACTIVITIES

WESTON START performed the SA activities with the assistance of EPA personnel in order to achieve the SA objectives. **Attachment B** provides photographic documentation of Site conditions and SA activities.

On June 11, 2013, EPA and WESTON START personnel mobilized to the Site to conduct the SA. During the SA, composite and grab surface soil samples were collected from 0 to 3 inches below ground surface (bgs) and field screened using an XRF instrument before final packaging of the samples for off-site laboratory analysis. XRF screening procedures were conducted as outlined in the approved FSP (**Attachment C**). Areas sampled included the following target areas of concern (AOC) in LaSalle Park: four soccer fields, one baseball diamond; four playgrounds; and accessible areas surrounding Beck's Lake. **Figure 2 in Attachment A** shows the sampling locations. The samples were collected to identify surface soil with high concentrations of metals (specifically arsenic, lead, and chromium).

Before the sampling was conducted, grids were laid out on the soccer fields and baseball diamond. All sampling location data were collected using a global positioning unit (GPS) unit. Sampling activities at each AOC are discussed below.



Ms. Theresa Holz
U.S. Environmental Protection Agency

-4-

Beck's Lake Health Risk SA
July 29, 2013

Soccer Field Sampling

Soccer Fields A through D were sampled. Each soccer field was divided into eight grids, and one five-point composite sample was collected from each grid square for analysis of Target Analyte List (TAL) metals. In addition, one five-point composite sample was collected from each soccer field for analysis of hexavalent chromium (Cr VI). **Figures 3 and 4 in Attachment A** show the soccer field sampling locations. All composite samples were collected from bare spots with limited turf.

Baseball Diamond Sampling

The baseball diamond area was divided into three grids based on a pie shape, and one five-point composite sample was collected from each grid square for analysis of TAL metals. In addition, one five-point composite sample was collected from across the baseball diamond for analysis of Cr VI. **Figure 5 in Attachment A** shows the baseball diamond sampling locations. All composite samples were collected from the dirt infield, which contained no grass or turf.

Playground Sampling

Four playgrounds were sampled. Sampling locations were selected under and around various pieces of permanent playground equipment. **Figures 3 and 5 in Attachment A** show the playground sampling locations. At the Southwest Playground, 10 discrete grab samples were collected for analysis of TAL metals and one five-point composite sample was collected for analysis of Cr VI. At the Parking Lot Playground, five discrete grab samples were collected for analysis of TAL metals and one five-point composite sample was collected for analysis of Cr VI. At the Southeast Playground, three discrete grab samples were collected for analysis of TAL metals and one three-point composite sample was collected for analysis of Cr VI. At the Northwest Playground, three discrete grab samples were collected for analysis of TAL metals and one three-point composite sample was collected for analysis of Cr VI. Any large wood chips were removed from the samples.

Beck's Lake Shore Sampling

Two samples were collected along the shoreline of Beck's Lake from an area where public access to the lake was possible through a break in the vegetation. **Figure 6 in Attachment A** shows the Beck's Lake sampling locations. One sample was analyzed for TAL metals and the other for Cr VI. The samples were collected from bare spots with limited brush.

XRF Soil Screening

In the field, the samples were homogenized, placed in Ziploc bags, and labeled. The Innov-X XRF instrument used for field screening was standardized in accordance with equipment guidelines, and the samples were screened three times using a 30-second screening interval. The field screening values were used by EPA to determine if additional sampling should be considered. WESTON START then transferred the soil samples into the proper laboratory



Ms. Theresa Holz
U.S. Environmental Protection Agency

-5-

Beck's Lake Health Risk SA
July 29, 2013

containers, labeled the containers, and placed all samples in a cooler on ice. Samples were shipped for analysis to Accutest Laboratories of New England in Marlborough, MA.

Table 1 in **Attachment D** summarizes the XRF screening results. The Innov-X reads the calculated chemical concentration and the error on the measurement. The error on the measurement is denoted in **Table 1** as a “+/-“ value that represents the sigma error on the counting statistics of the measurement. The XRF results were compared to the EPA’s residential Removal Management Level (RML) based on a hazard quotient (HQ) of 3. Two of the triplicate arsenic results for sample BL-SO81 collected at the Southwest Playground exceeded the RML of 39 mg/kg at concentrations of 40 +/- 6 mg/kg and 46 +/- 6 mg/kg. One of the triplicate arsenic results for sample BL-SO82 collected at the Southwest Playground exceeded the RML of 39 mg/kg at a concentration of 40 +/- 5 mg/kg. The corresponding laboratory analytical results for the samples are discussed below.

LABORATORY ANALYTICAL RESULTS

All surface soil samples were submitted to the laboratory within the acceptable holding times as defined in the site-specific FSP (**Attachment C**). The laboratory electronically submitted analytical results to a WESTON START chemist for review and validation, and preliminary results were forwarded to the OSC on July 1, 2013. A data validation report was prepared for the analytical results received from the laboratory, and all of laboratory results were deemed suitable for use. **Attachment E** provides the full laboratory summary of the analytical results, and **Attachment F** provides the data validation report.

Table 2 in **Attachment D** summarizes the analytical results for TAL metals and Cr VI. EPA SW-846 Method 6010B was used to analyze 61 samples, including 4 duplicates. The following metals are included in the TAL metals analytical method: aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium (total), cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc. EPA SW-846 Method 3060A/7196 was used to analyze 11 samples, including 1 duplicate. Redox potential and pH analyses are included with the Cr VI analytical method.

The validated analytical results were compared to the EPA’s residential RMLs based on a HQ of 3. The soil sampling analytical results are summarized below.

- **TAL Metals:** No TAL metals were detected at concentrations exceeding the residential RMLs. As previously discussed, XRF screening results at sampling locations BL-SO81 and BL-SO82 exceeded the EPA RML of 39 mg/kg. However, corresponding laboratory analytical results indicated arsenic concentrations of 29.6 mg/kg and 13.8 mg/kg for the investigative and duplicate samples collected at location BL-SO81. Sample BL-SO82 was a composite of soil collected at locations BL-SO76 through BL-SO80 for Cr VI analysis. Laboratory analytical results did not indicate arsenic concentrations exceeding the RML for samples BL-SO76 through BL-SO80.



Ms. Theresa Holz
U.S. Environmental Protection Agency

-6-

Beck's Lake Health Risk SA
July 29, 2013

- Cr VI: Cr VI was not detected at concentrations exceeding the residential RML for Cr VI of 29 mg/kg.

POTENTIAL THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Factors to be considered in determining the appropriateness of a potential removal action at a site are delineated in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) at Title 40 of the *Code of Federal Regulations* (CFR) 300.415(b)(2). Based on the detected levels of contamination and the size of the affected area, the Site does not appear to pose imminent and substantial threats to the public health or welfare of the United States or the environment. A summary of the NCP factors applicable to this Site is provided below.

- **High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate**

Analytical results for surface soil samples collected during the SA indicate that TAL metals levels do not exceed the residential RMLs. In addition, all Cr VI analytical results are below the residential RML. The bare spots at the Site apparently do not contain any source material. Therefore, the threat of off-site migration likely is very low.

CONCLUSIONS

Based on the factors discussed above, the Site does not pose imminent and substantial threats to the public health or welfare of the United States or the environment. This conclusion is based on the SA sample analytical results.

This letter report serves as the final deliverable for this TDD. If you have questions or comments regarding this report, please contact us.

WESTON SOLUTIONS, INC.

Jeff Bryniarski
START Site Lead
Telephone No.: (312) 424-3307

Krista Richardson
START Project Manager
Telephone No.: (847) 918-4066



Ms. Theresa Holz
U.S. Environmental Protection Agency

-7-

Beck's Lake Health Risk SA
July 29, 2013

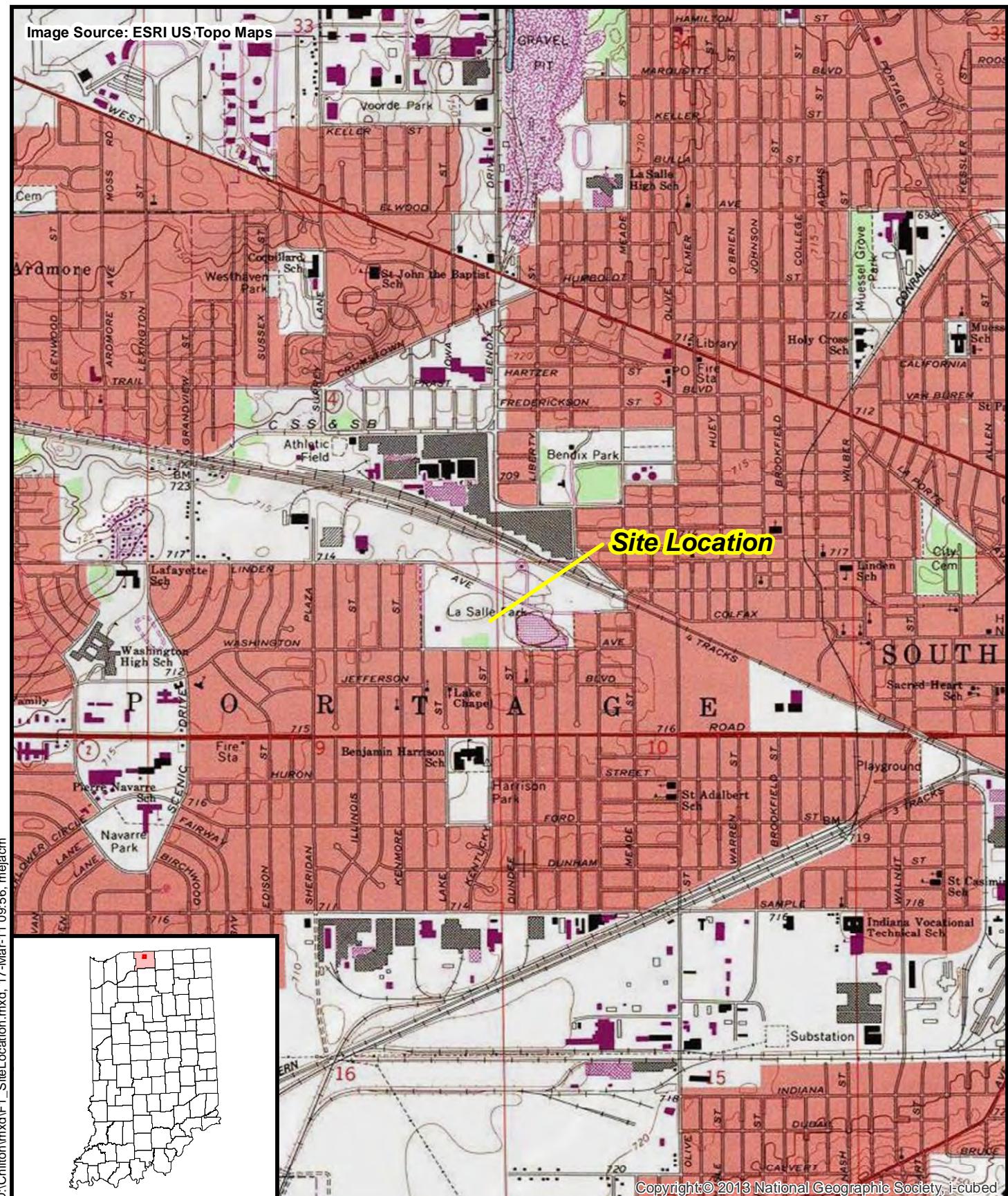
Attachments:

- A – Figures
- B – Photographic Documentation
- C – Field Sampling Plan
- D – Tables
- E – Laboratory Analytical Results
- F – Data Validation Report

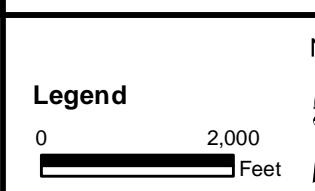
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ATTACHMENT A

FIGURES



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U.S. EPA REGION V

Contract No: EP-S5-06-04
TDD: S05-0008-1305-021
DCN: 2161-2A-BHRF

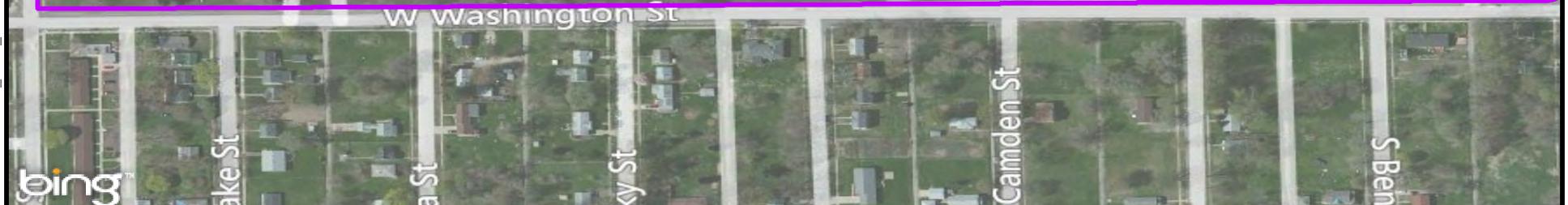
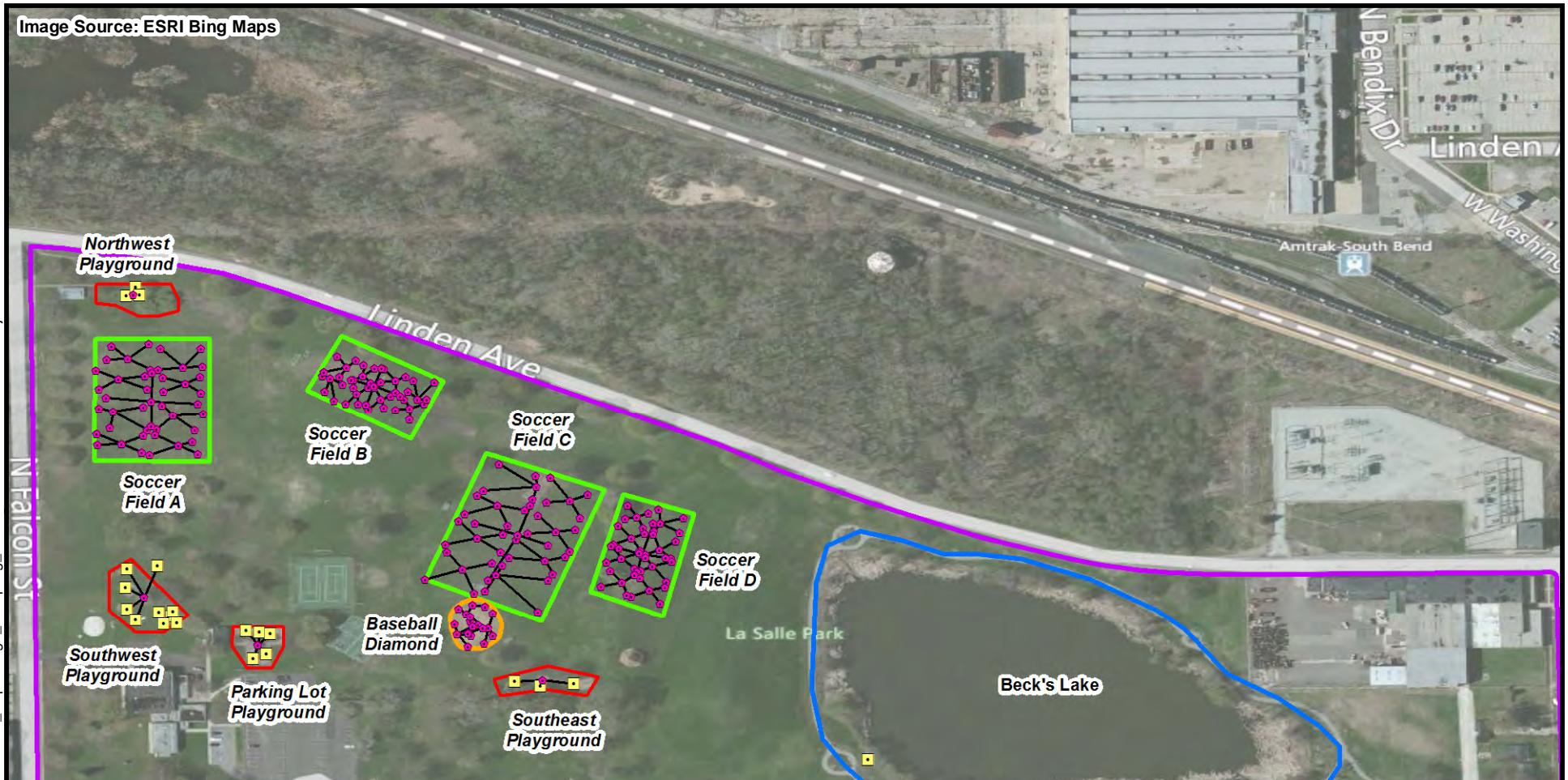


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Figure 1
Site Location Map
Beck's Lake Health Risk SA
South Bend, St Joseph County, Indiana

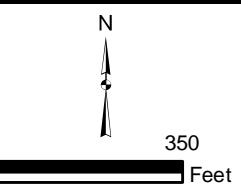
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Legend

- Discrete Sample ■ Playground
- Composite Sample ■ Soccer Field
- Baseball Diamond ■ Site Boundary
- Lake AOC

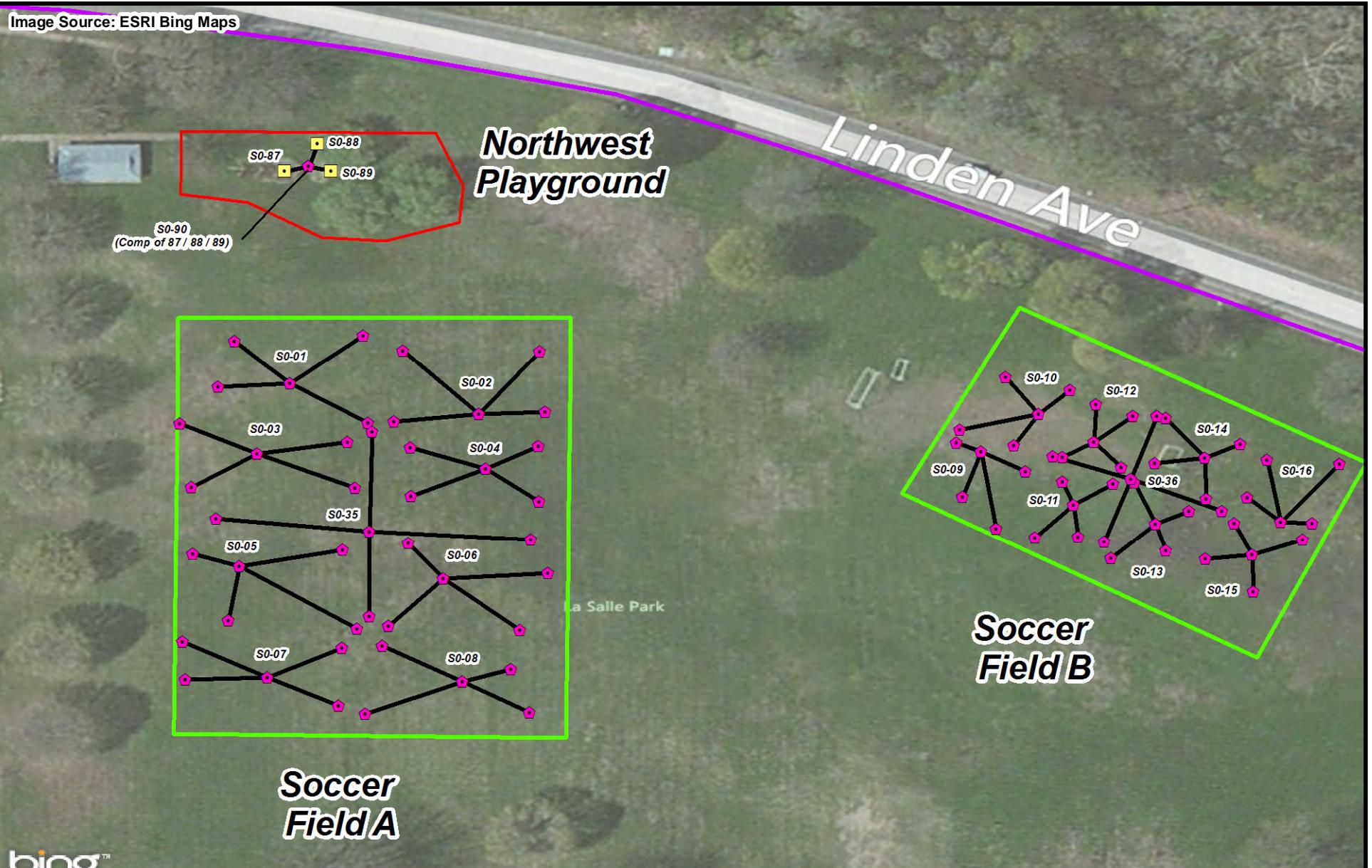


Prepared for:
U.S. EPA REGION V
Contract No: EP-S5-06-04
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DCN: 2161-2A-BHFR

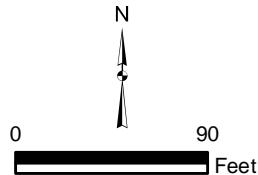


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Figure 2
Sampling Location Map
Beck's Lake Health Risk SA
South Bend, St Joseph County, Indiana



- Legend**
- [Yellow square] Discrete Sample
 - [Pink diamond] Composite Sample
 - [Green line] Soccer Field
 - [Purple line] Site Boundary



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Contract No: EP-S5-06-04
TDD: S05-0008-1305-021
DCN: 2161-2A-BHFR



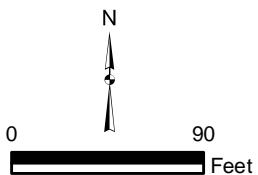
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Figure 3
Sampling Location Map -
Soccer Field A/B and Northwest Playground
Beck's Lake Health Risk SA
South Bend, St Joseph County, Indiana



Legend

- Discrete Sample
- ♦ Composite Sample
- Soccer Field
- Site Boundary



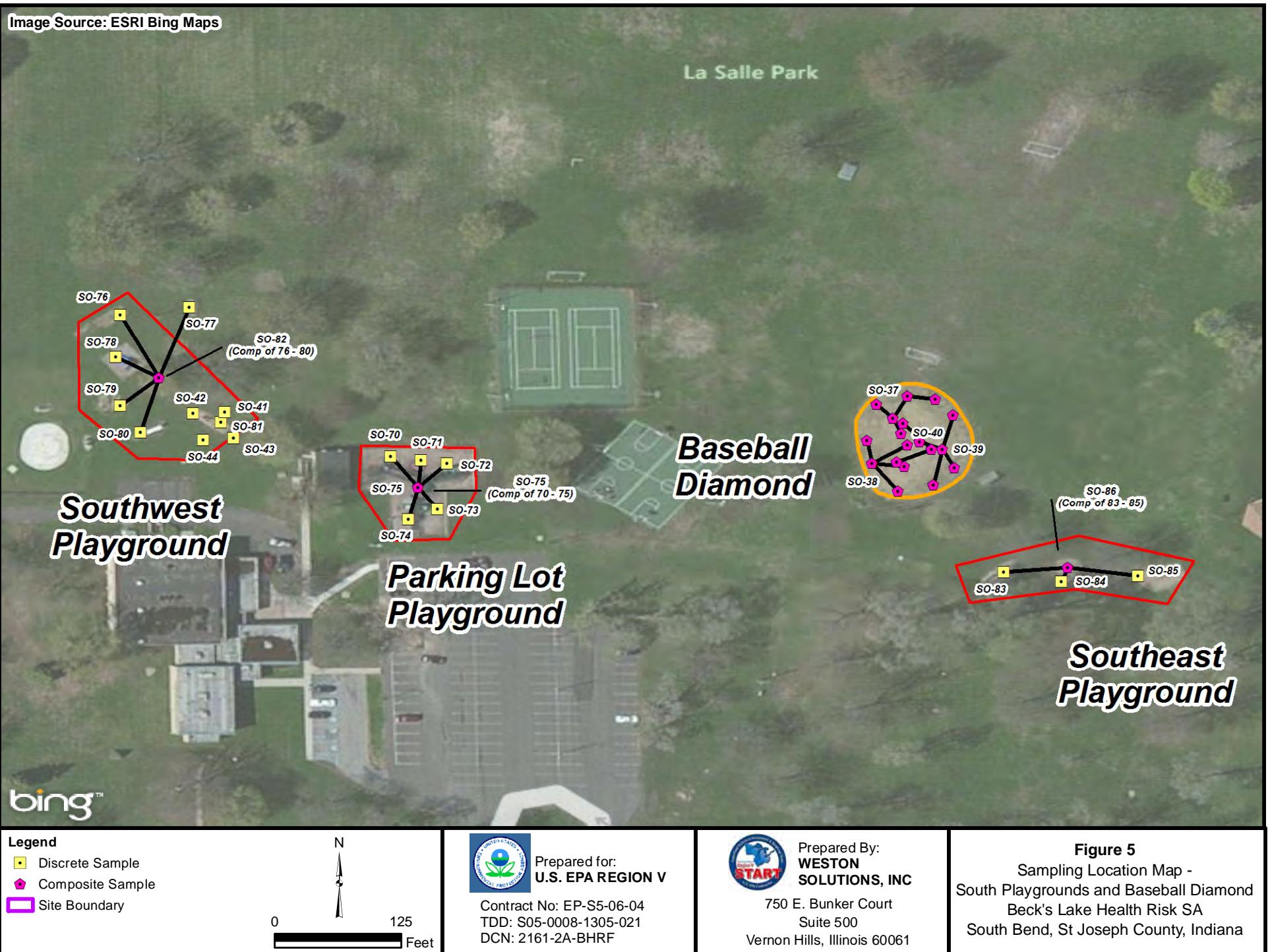
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U.S. EPA REGION V

Contract No: EP-S5-06-04
TDD: S05-0008-1305-021
DCN:



Prepared By:
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Figure 4
Sampling Location Map -
Soccer Field C and D
Beck's Lake Health Risk SA
South Bend, St Joseph County, Indiana





ATTACHMENT B
PHOTOGRAPHIC DOCUMENTATION



Site: Beck's Lake Health Risk SA

Photograph No.: 1

Date: 6/11/13

Direction: North

Photographer: Jeff Bryniarski

Subject: Public access to lake shore (sampling location SO-91/SO-92)



Site: Beck's Lake Health Risk SA

Photograph No.: 2

Date: 6/11/13

Direction: Northwest

Photographer: Jeff Bryniarski

Subject: Soccer Field A with pin flags marking sampling grid



Site: Beck's Lake Health Risk SA

Photograph No.: 3

Direction: South

Subject: Parking Lot Playground (sampling location SO-72)

Date: 6/11/13

Photographer: Jeff Bryniarski



Site: Beck's Lake Health Risk SA

Photograph No.: 4

Direction: Northeast

Subject: Southwest Playground (sampling location SO-81)

Date: 6/11/13

Photographer: Jeff Bryniarski



Site: Beck's Lake Health Risk SA

Photograph No.: 5

Date: 6/11/13

Direction: East

Photographer: Jeff Bryniarski

Subject: START collecting soil sample from Northwest Playground (sampling location SO-89)



Site: Beck's Lake Site Assessment Letter Report

Photograph No.: 6

Date: 6/11/13

Direction: South

Photographer: Jeff Bryniarski

Subject: Baseball Diamond area with pin flags marking sampling grid

ATTACHMENT C
FIELD SAMPLING PLAN

**FIELD SAMPLING PLAN
FOR THE
BECK'S LAKE HEALTH RISK SITE ASSESSMENT
SOUTH BEND, ST. JOSEPH COUNTY, INDIANA**

REVISION 0

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Prepared by

WESTON SOLUTIONS, INC.
Region V Superfund Technical Assessment and Response Team

June 10, 2013

Approved by: _____ Date: _____
U.S. EPA Region V
On-Scene Coordinator

Project Dates of Sampling:	June 11 - 13, 2013
CERCLA Site/Spill Identifier No.:	IND980904379
Contractor Organization:	Weston Solutions, Inc.
Contract Name:	START III
Contract No.:	EP-S5-06-04
Technical Direction Document No.:	S05-0008-1305-021
Document Control No.:	2161-4H-BHHL

ACRONYM LIST

ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
COC	chain-of-custody
FSP	Field Sampling Plan
GPS	Global Positioning System
HASP	Health and Safety Plan
HQ	Hazard Quotient
IDEM	Indiana Department of Environmental Management
Mg/kg	milligrams per kilogram
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
PPE	Personal Protective Equipment
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RML	Removal Management Levels
SOP	Standard Operating Procedure
START	Superfund Technical Assessment and Response Team
TAL	Target Analyte List
WESTON®	Weston Solutions, Inc
XRF	X-Ray Fluorescence Device

TABLE OF CONTENTS

Section	Page
1. INTRODUCTION.....	1
2. PROJECT MANAGEMENT AND FSP DISTRIBUTION AND PROJECT TEAM MEMBER LIST	1
3. PLANNING AND PROBLEM DEFINITION	1
3.1 PROBLEM DEFINITION	1
3.2 SITE HISTORY AND BACKGROUND	1
3.3 CONTAMINANTS OF CONCERN/TARGET ANALYTES	1
4. PROJECT DESCRIPTION AND SCHEDULE	2
5. PROJECT QUALITY OBJECTIVES.....	2
5.1 PROJECT OBJECTIVES	2
5.2 MEASUREMENT AND PERFORMANCE CRITERIA	3
5.3 DATA QUALITY OBJECTIVES	3
6. SAMPLING DESIGN.....	3
6.1 SOIL SAMPLING	3
6.2 SAMPLE NUMBERING SYSTEM.....	4
6.3 MANAGEMENT OF INVESTIGATION-DERIVED WASTES.....	5
7. SAMPLING PROCEDURES	5
7.1 SAMPLING STANDARD OPERATING PROCEDURES.....	5
7.2 DECONTAMINATION PROCEDURES	5
8. SAMPLE HANDLING, TRACKING, AND CUSTODY PROCEDURES	5
9. FIELD ANALYTICAL METHODS AND PROCEDURES.....	6
9.1 FIELD ANALYTICAL METHODS AND STANDARD OPERATING PROCEDURES.....	6
9.2 FIELD TESTING LABORATORY	6
9.3 SCREENING/CONFIRMATORY ANALYSES	6
10. FIXED LABORATORY ANALYTICAL METHODS AND PROCEDURES.....	6
11. QUALITY CONTROL ACTIVITIES	6
11.1 FIELD QUALITY CONTROL.....	6
11.2 ANALYTICAL QUALITY CONTROL	6
11.3 PERFORMANCE EVALUATION SAMPLES	6
12. DOCUMENTATION, RECORDS, AND DATA MANAGEMENT	6
13. QUALITY ASSURANCE ASSESSMENT AND CORRECTIVE ACTIONS	7

TABLE OF CONTENTS (CONTINUED)

Section	Page
14. REPORTS TO MANAGEMENT.....	7
15. STEPS 1, 2 AND 3: DATA REVIEW REQUIREMENTS AND PROCEDURES	7

LIST OF TABLES

Table 1 FSP Revision Form

Table 2 Sampling and Analysis Summary

LIST OF FIGURES

Figure 1 Site Location Map

Figure 2 Sample Location Map

LIST OF ATTACHMENTS

Attachment A – Field Collection Sheets

Attachment B – Standard Operating Procedures

1. INTRODUCTION

This Field Sampling Plan (FSP) identifies the data collection activities and associated quality assurance/quality control (QA/QC) measures specific to the Beck's Lake Site (the Site) located at LaSalle Park at the intersection of Washington and Falcon Streets in South Bend, St. Joseph County, Indiana. All data will be generated in accordance with the quality requirements described in the Weston Solutions, Inc. (WESTON[®]) *Superfund Technical Assessment and Response Team (START) III Generic Quality Assurance Project Plan (QAPP)*, dated June 2006. The purpose of this FSP is to describe site-specific tasks that will be performed in support of the stated objectives. The FSP will reference back to the QAPP for generic tasks common to all data collection activities including routine procedures for sampling and analysis, sample documentation, equipment decontamination, sample handling, data management, assessment and data review. Additional site-specific procedures and/or modifications to procedures described in the *START III Generic QAPP* are described in the following FSP elements.

This FSP is prepared, reviewed, and approved in accordance with the procedures detailed in the *START III Generic QAPP*. Any deviations or modifications to the approved FSP will be documented using Table 1: FSP Revision Form.

2. PROJECT MANAGEMENT AND FSP DISTRIBUTION AND PROJECT TEAM MEMBER LIST

Management of the Site will be as documented in the *START III Generic QAPP*. Refer to the *START III Generic QAPP* for an organizational chart, communication pathways, personnel responsibilities and qualifications, and special personnel training requirements.

The following personnel will be involved in planning and/or technical activities performed for this data collection activity. Each will receive a copy of the approved FSP. A copy of the FSP will also be retained in the Site file.

Personnel	Title	Organization	Phone Number	Email
Theresa Holz	OSC	EPA	312-886-6845	holz.theresa@epa.gov
Owen Thompson	RPM	EPA	312-886-4843	thompson.owen@epa.gov
Krista Richardson	Project Manager	START	847-918-4066	krista.richardson@westonsolutions.com
Jeff Bryniarski	Field Scientist	START	312-424-3307	jeff.bryniarski@westonsolutions.com
Tonya Balla	QA Reviewer / Health and Safety	START	847-918-4094	t.balla@westonsolutions.com

NOTES:

OSC – On-Scene Coordinator

QA – Quality Assurance

RPM – Remedial Project Manager

START – Superfund Technical Assessment and Response Team

U.S. EPA – U.S. Environmental Protection Agency

3. PLANNING AND PROBLEM DEFINITION

3.1 PROBLEM DEFINITION

The Indiana Department of Environmental Management (IDEM) conducted a Brownfields Environmental Assessment at the Site in October 2001. Arsenic was detected in soil samples at concentrations exceeding the IDEM Risk Based Closure Residential Default Closure Level of 3.9 milligrams per kilogram (mg/kg). In a letter dated October 22, 2010, IDEM requested that the U.S Environmental Protection Agency perform a site assessment.

EPA has tasked WESTON START with conducting a site assessment at the Site to evaluate the presence of metals in Site soil and determine if a Removal Action is warranted. The site assessment shall be conducted to determine the concentrations and extent of contaminants in soils and to determine whether the contamination poses an imminent risk to human health, welfare, and the environment.

3.2 SITE HISTORY AND BACKGROUND

The Site is located at the intersection of Washington and Falcon Streets in South Bend, St. Joseph County, Indiana (**Figure 1**). The Site is composed of an approximately 8-acre lake as part of the 40-acre LaSalle Park. LaSalle Park encompasses a baseball infield, soccer fields, recreational picnic areas, a parking lot and community center, playground areas with permanent equipment, and a significant area that serves as additional green space. The Site is bordered to the south and west by residential properties, to the north by wooded area and a quarry, and to the east by a light industrial property. The meridian coordinates of the Site are 41°40' 34.72" north latitude and 86°17'27.37" west longitude.

IDEM conducted a Brownfields Environmental Assessment of the Site in October 2001. This event included the collection of six on-site surface soil samples, four off-site surface soil samples, three sediment samples from Beck's Lake, three surface water samples from Beck's Lake, and one off-site background surface soil sample. Arsenic was detected in several soil/sediment samples at concentrations ranging from 4.8 mg/kg to 20.9 mg/kg exceeding the IDEM Risk Based Closure Residential Default Closure Level of 3.9 mg/kg.

In June 2003, IDEM conducted a Site Reassessment of the Site. During the reassessment, 22 surface soil samples were collected. Metals exceeding the site-specific background sample concentrations by three times included arsenic, lead, and chromium.

3.3 CONTAMINANTS OF CONCERN/TARGET ANALYTES

The contaminants of concern at the Site are metals with arsenic, lead, and chromium being the main chemicals of concern. Laboratory samples will be analyzed for:

Aluminum	Antimony	Arsenic	Barium	Beryllium
Cadmium	Calcium	Chromium	Cobalt	Copper
Iron	Lead	Magnesium	Manganese	Mercury
Nickel	Potassium	Selenium	Silver	Sodium
Thallium	Vanadium	Zinc		

4. PROJECT DESCRIPTION AND SCHEDULE

Site work is expected to be conducted in three days (including mobilization and demobilization from the Site). The site assessment will consist of a site reconnaissance and sample collection.

START will have two personnel performing the site assessment activities in modified Level D (reconnaissance and sampling activities) Personal Protective Equipment (PPE). The site assessment start date is June 11, 2013.

A WESTON-procured subcontracted laboratory will be utilized for analyses. The turnaround time for the preliminary sample data will be 10 calendar days. The sampling results will be reviewed and validated by a START chemist within seven days following receipt of the full data package. A summary report of the investigation sampling results will be submitted to EPA within two weeks of receipt of the validated data.

5. PROJECT QUALITY OBJECTIVES

5.1 PROJECT OBJECTIVES

The objective of the site assessment is to collect samples to evaluate potential threats to human health, human welfare, and the environment posed by current Site conditions. The objectives for this investigation include:

- Identify the constituents and/or characteristic properties of on-site soils;
- Determine if a removal action is warranted based on National Oil And Hazardous Substances Pollution Contingency Plan (NCP) criteria and, if so, whether the response should be classified as emergency, time-critical, or non-time critical;
- Rapidly assess and evaluate the urgency, magnitude, extent, and effects of a release, or threatened release, of hazardous substances, pollutants or contaminants identified and their affects on human health and/or the environment;
- Supply the Agency for Toxic Substances and Disease Registry (ATSDR) or others with information about the nature and magnitude of any health threats associated with the identified threats;
- Support subsequent public health advisories; and
- Determine a remedy to eliminate, reduce, or control risks to human health and the environment and to support an Action Memorandum documenting the identified removal approach.

Samples collected from the Site will be analyzed for the following:

- **Soil Samples** – Target analyte list (TAL) metals and hexavalent chromium [chromium(VI)]

The sampling results for soil samples will be compared to the U.S. EPA Removal Management Levels (RMLs) based on a target risk of 1E-4 and a hazard quotient (HQ) of 3.

5.2 MEASUREMENT AND PERFORMANCE CRITERIA

Generic measurement and performance criteria described in the *START III Generic QAPP* will be used to ensure that data are sufficiently sensitive, precise, accurate, and representative to support site decisions.

5.3 DATA QUALITY OBJECTIVES

Data quality objectives address requirements that include when, where, and how to collect samples, the number of samples, and the limits on tolerable error rates. These steps should periodically be revisited as new information about a problem is learned. Sections 4.0 and 6.0 address these objectives.

In addition, data quality objectives address the analytical screening levels to be used to make decisions. Surface soil samples collected will be analyzed for TAL metals and chromium(VI). The sampling results for surface soil samples will be compared to the U.S. EPA RMLs.

6. SAMPLING DESIGN

The site assessment will be performed June 11 – 13, 2013. WESTON START will perform the site assessment activities detailed in the following subsections.

Screening with an X-Ray Fluorescence Device (XRF) unit will be conducted on composite samples prior to allocating aliquot for off-site laboratory analysis.

6.1 SOIL SAMPLING

WESTON START will conduct soil sampling at each of the target areas of concern (AOC) of LaSalle Park; four soccer fields, one baseball infield; four playgrounds; and accessible areas surrounding Beck's Lake to identify soil with high concentrations of metals (specifically arsenic, lead, and chromium). An estimated total of 64 (58 investigative + 6 duplicate) soil samples will be collected for off-site laboratory analysis of TAL metals. One sample will be selected for laboratory analysis of chromium(VI) per AOC for a total of 11 (10 investigative + 1 duplicate) samples. Samples will be selected for chromium(VI) analysis based upon elevated XRF chromium results or by random selection. One surface soil sample (0-3 inches below ground surface [bgs]) will be collected at each sampling location. All sampling locations will be collected with a global positioning unit (GPS) unit.

Each of the four soccer fields will be divided into eight grids and one 5-point composite sample will be collected at each grid of each of the four soccer fields. Samples may also be selected at the 3-6 inches bgs interval as deemed necessary based on visual observations in the field if large divots are observed where there may be exposure to deeper soils.

The baseball field will be divided into three grids based on a pie shape and one 5-point composite sample will be collected from each grid for a total of three sampling locations.

An estimated five discrete or composite samples will be collected at each of the four playground areas for off-site laboratory analysis of TAL metals. An estimated three composite samples will be collected at areas surrounding Beck's Lake for off-site laboratory analysis of TAL metals.

Sampling locations will be selected in the field based on visual evidence of bare spots on each of the soccer fields and the baseball field, accessible areas surrounding Beck's Lake, and at high exposure areas of the playgrounds (e.g., under swings, at the end of the slides, etc.). For each sampling interval, the soil will be homogenized and placed in a Ziploc bag. The Ziploc bag will be marked clearly with the sample number, date, and time of collection.

XRF field screening will be conducted of each composite sample. The soil will be screened through the Ziploc bag and a one-minute analysis time will be employed for each sample. At least three readings will be collected for each sample. The XRF field screening results will be recorded in the Site logbook or on field data sheets (Attachment A).

Additional XRF readings may be collected from the grids if composite readings indicate elevated XRF readings that are not consistent with other nearby areas. Note that the RMLs are 39 mg/kg for arsenic, 400 mg/kg for lead, and 29 mg/kg for chromium(VI).

Sampling activities will be conducted in Level D PPE in accordance with the approved site-specific health and safety plan (HASP). WESTON START will don fresh sampling gloves at each sampling location. The surface soil will be collected using a dedicated disposable sampling scoop and/or a decontaminated stainless steel bucket auger. For each sampling interval, the soil will be homogenized in a dedicated disposable foil pan or Ziploc bag. A duplicate sample will be collected for one in every 10 samples. A matrix spike/matrix spike duplicate (MS/MSD) sample will be collected for one in every 20 samples. Any observations along with time, date and sample ID will be recorded in the Site logbook.

6.2 SAMPLE NUMBERING SYSTEM

All samples for analysis, including QC samples, will be given a unique sample number. The sample numbers will be recorded in the field logbook, the chain-of-custody (COC) paperwork, and the shipment documents.

START will assign each sample a project sample number. The project sample number highlights the suspected contaminated area and location, and will be used for documentation purposes in field logbooks, as well as for presentation of the analytical data in memoranda and reports. The project samples will be identified using the following format:

BL- XXYY(Z-Z)-mmddyy

Where:

- BL indicates that the sample is from the Beck's Lake Site
- XX indicates the “matrix” as follows: “SO” for soil
- YY indicates the sequential soil sampling location (01, 02, 03, etc.)
- ZZ indicates the sample depth in inches, if applicable
- mmddyy indicates the date

Field duplicate samples will be designated with a "D" suffix. Examples of the sample identifications for the Site are as follows:

- BLS- SO01(0-3)-061113: Beck's Lake Site; first soil sample location collected from 0-3 inches bgs; sample collected on June 11, 2013.
- BLS-SO02(0-3)-061113D: Beck's Lake Site; second soil sample location collected from 0-3 inches bgs; sample collected on June 11, 2013; duplicate sample.

6.3 MANAGEMENT OF INVESTIGATION-DERIVED WASTES

For purposes of this FSP, investigation-derived wastes are defined as any byproduct of the field activities that is suspected or known to be contaminated with hazardous substances. The performance of field activities will produce waste products, such as spent sampling supplies (i.e.; scoops, foil pans), and expendable PPE (i.e.; gloves, booties). It is expected that disposable equipment will be used for most of the sample collection and therefore, no decontamination water will be generated. A distilled water and Alconox solution spray will be used for the hand auger equipment. All disposable waste generated during the site assessment will be placed in trash bags and disposed of as general refuse. If required, disposal arrangements will be executed in accordance with appropriate local, state, or federal regulations. START will refer to the EPA's *Management of Investigation-Derived Wastes During Site Inspections* (EPA, 1991) guidance on off-site disposal policies, if this action is deemed necessary.

7. SAMPLING PROCEDURES

7.1 SAMPLING STANDARD OPERATING PROCEDURES

The following standard operating procedures (SOPs) will be used during the site assessment with any necessary modifications that are needed (Attachment B):

- WESTON SOP 302 – Surface Soil

7.2 DECONTAMINATION PROCEDURES

General decontamination procedures are described in Section B.2 of the *START III Generic QAPP*. The following standard decontamination protocols will be used:

- All disposable sampling supplies and PPE will be bagged and staged on site in an area specified by EPA.
- Non-dedicated equipment, such as the hand auger, will be sprayed with an Alconox and distilled water solution.

8. SAMPLE HANDLING, TRACKING, AND CUSTODY PROCEDURES

All samples will be identified, handled, shipped, tracked, and maintained under COC, in accordance with *START III Generic QAPP* Section B.3.

9. FIELD ANALYTICAL METHODS AND PROCEDURES

9.1 FIELD ANALYTICAL METHODS AND STANDARD OPERATING PROCEDURES

Field analytical methods will not be employed during the site assessment

9.2 FIELD TESTING LABORATORY

A field testing laboratory is not anticipated at this time.

9.3 SCREENING/CONFIRMATORY ANALYSES

An Innov-X Handheld XRF unit will be utilized during soil sampling activities.

10. FIXED LABORATORY ANALYTICAL METHODS AND PROCEDURES

The soil samples collected from the Site will be analyzed by a WESTON-procured laboratory, Accutest Laboratories of New England, Marlborough, MA. The laboratory analytical methods and procedures are detailed in Table 2 of this FSP.

11. QUALITY CONTROL ACTIVITIES

11.1 FIELD QUALITY CONTROL

A duplicate XRF analysis will be conducted for one in every 10 samples.

11.2 ANALYTICAL QUALITY CONTROL

QC for analytical procedures will be performed at the frequency described in *START III Generic QAPP*, Tables 5 and 6. In addition, method-specific QC requirements will be used to ensure data quality.

11.3 PERFORMANCE EVALUATION SAMPLES

Standard reference material supplied with the XRF sampling device will be used to calibrate the monitor on a daily basis at the start of sampling and any time that accuracy or reproducibility of results becomes inconsistent. The Innov-X XRF has a three point calibration utilizing standard reference materials with known high, medium, and low concentrations of several elements.

12. DOCUMENTATION, RECORDS, AND DATA MANAGEMENT

Documentation, record keeping, and data management activities will be conducted in accordance with the *START III Generic QAPP*, Section B.10.

13. QUALITY ASSURANCE ASSESSMENT AND CORRECTIVE ACTIONS

No field audits will be conducted due to the short-term sampling activity.

14. REPORTS TO MANAGEMENT

Reports to management will be written and distributed in accordance with the *START III Generic QAPP*, Section C.

15. STEPS 1, 2 AND 3: DATA REVIEW REQUIREMENTS AND PROCEDURES

Step 1: Data collection activities, including sample collection and data generation, will be verified in accordance with the *START III Generic QAPP*, Section D.

Step 2: Data will be validated in accordance with the *START III Generic QAPP*, Section D.

A WESTON START chemist will validate the data. Definitive data will be validated following Tier Level II.

Step 3: Data will be reviewed for usability in accordance with the *START III Generic QAPP*, Section D.

TABLES

Table 1
FSP Revision Form

Site: Beck's Lake Health Risk SA, South Bend, St. Joseph County, Indiana

OSC: Theresa Holz

TDD: S05-0008-1305-021

Date	Rev. No.	Proposed Change to FSP/QAPP	Reason for Change of Scope/Procedures	FSP Section Superseded	Requested By	Approved By

Table 2
Sampling and Analysis Summary

Site: Beck's Lake Health Risk SA, South Bend, St. Joseph County, Indiana

OSC: Theresa Holz

TDD: S05-0008-1305-021

Matrix	Analytical Parameter	Analytical Method	Containers (Numbers, Size, and Type)	Preservation Requirements	No. of Sampling Locations	No. of Field Duplicate	No. of MS/MSD	No. of Trip Blank	Total No. of Samples to Lab	Holding Time
Surface Soil (0-3-inch bgs)	TAL Metals	SW846 6010B	(1) 8-ounce amber jar	Cool to 4°C	58	6	3	0	64	28 days for mercury, 6 months for the remaining metals
	Chromium (VI)	SW846 3060A/7196	(1) 8-ounce amber jar	Cool to 4°C	10	1	1	0	11	24 hrs for extraction, 30-days for analysis

Note:

Trip blanks are not required for metals samples.

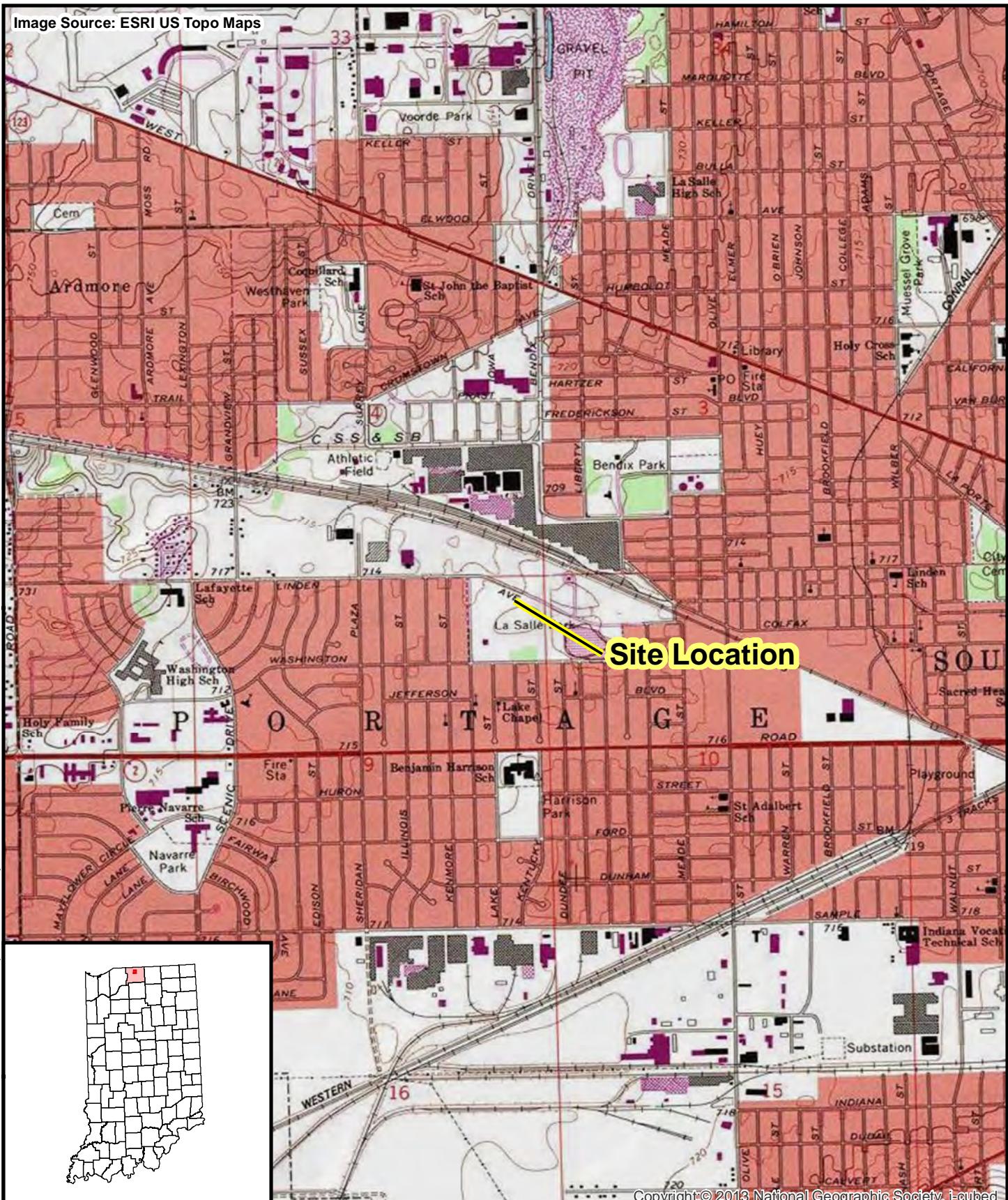
Total number of samples to the laboratory does not include MS/MSD samples.

°C – Degrees Celsius

bgs – below ground surface

MS/MSD – Matrix Spike/Matrix Spike Duplicate

FIGURES



File: D:\Chilton\mxdf1_SiteLocation.mxd, 07-Apr-11 09:22, mejacm

Legend	Prepared for: U.S. EPA REGION V	Prepared By: WESTON SOLUTIONS, INC	Figure 1 Site Location Map Beck's Lake Health Risk SA South Bend, St Joseph County, Indiana
 Site Boundary  0 2,000 Feet	 Prepared for: U.S. EPA REGION V Contract No: EP-S5-06-04 TDD: S05-0008-1305-021 DCN: 2161-4H-BHHL	 Prepared By: WESTON SOLUTIONS, INC 750 E. Bunker Court Suite 500 Vernon Hills, Illinois 60061	



ATTACHMENT A

FIELD COLLECTION SHEETS

Field Data Collection Form
Beck's Lake Health Risk Site Assessment
South Bend, Indiana

Sample Location ID: _____

Location SOOCER FIELD PLAYGROUND BASEBALL FIELD LAKE

Sample Date: _____ **Sample Time:** _____

Sample Collected By: _____

Sample Observations (color, texture, odor, etc)

Overall: _____

Sample Type: DISCRETE COMPOSITE

Other Comments: _____

Analysis (all): TAL Metals Cr(VI)

Field duplicate: YES / NO

XRF Readings:

<u>Reading #</u>	<u>Arsenic</u>	<u>Chromium</u>	<u>Lead</u>
1			
2			
3			
4			

Other Comments: _____

ATTACHMENT B

STANDARD OPERATING PROCEDURES

SUPERFUND TECHNICAL ASSESSMENT RESPONSE TEAM
STANDARD OPERATING PROCEDURE

SOP 302
SURFACE SOIL SAMPLING

1.0 INTRODUCTION

The purpose of this Standard Operating Procedure (SOP) is to provide Roy F. Weston, Inc. (WESTON®), Superfund Technical Assessment Response Team (START) members with a step-by-step guide for collecting representative surface soil samples using scoops and bucket augers.

2.0 MATERIALS REQUIRED

Below is a list of the materials needed for surface soil sampling events. Both dedicated and reusable sampling equipment are required.

- Personal protective equipment (as specified in the Health and Safety Plan)
- Sampling plan
- Maps/sketches
- Compass
- Tape measure (up to 300 ft)
- Survey flags/stakes
- Aluminum homogenization pans
- Sample jars
- Logbook
- Sample labels/tags
- Chain-of-custody forms and custody seals

- Field data sheets
- Coolers
- Ice
- Decontamination equipment (brushes, buckets, garden sprayer, phosphate-free soap, water, etc.)
- Ziploc® bags
- Plastic sheeting
- Paper towels
- Ball-point pen
- Permanent marker
- Grease pencil
- Marking spray paint
- Digital camera or a camera with film
- Air monitoring equipment [Micro FID, Multi RAE 5 Gas detector, etc.]
- Plastic sample scoops, if applicable
- Bucket auger, if applicable
- Thin-walled tube sampler, if applicable
- Plastic garbage bag
- Scissors

3.0 SAFETY PRECAUTIONS

Due to unknown constituents of the soil media, the exposure potential for personnel exists and must be of primary concern. Before any soil sampling is performed, a Health and Safety Plan (HASP) must be approved by the Regional Safety Officer.

1. Follow the HASP safety schedule.
2. Determine the appropriate levels of protection to be worn by personnel.
3. Conduct air monitoring in the breathing zones and screen the sample location holes once they are selected.

4. Ensure that equipment is properly decontaminated and in working condition prior to the mobilizing to the site.
5. Coordinate efforts and staffing with the client or agency with which you are working.

4.0 SAMPLING PROCEDURES

1. Perform a general site reconnaissance to verify actual site conditions consistent with the HASP.
2. Identify and mark all sampling locations using sample flags or stakes as specified in the sampling plan. *All sample locations should be measured, documented, and mapped in reference to a permanent marker, i.e. specified utility pole, benchmark, property marker, etc.*
3. Mark the pertinent site information in a site logbook and on field data sheets. *When large amounts of samples are collected, field data sheets allow for easy organization in addition to logbook entries.*
4. Make sure all sampling equipment is properly decontaminated prior to sampling.
5. Wear clean, disposable surgical gloves for each sampling location.
6. Begin sampling by cutting or pulling back debris with a stainless steel or dedicated plastic scoop.
7. Cover the sample location area with plastic sheeting if the soil has a high probability of contamination.
8. Continue cutting to the required depth. Generally, surface sampling is considered 0-3 inches below the surface. It is recommended sample holes be kept the same size diameter (suggested 6 inches) even when using scoops to keep samples relative to each other. Sample collection will focus on soil particles, not plant and tree roots, stones, rocks, concrete and other materials intermixed in the soil matrix.
9. If a grab sample is to be collected, transfer the sample volume directly into the sample container using a sampling device. *Check the preferred sampling apparatus list for various analytical parameters.* A grab sample pertains to a discreet depth or area in a given matrix.
10. Transfer the sample volume to a homogenization container if the sample is a composite sample or a pseudo-grab sample. A composite sample is a mixture of different depths, areas, and/or strata. Composite samples are not recommended for the collection of VOC samples because mixing causes volatile compounds to evaporate.
11. There are several homogenization techniques. The “quartering technique” requires the total volume of samples be divided into fourths inside the aluminum pan. Each quarter is then mixed individually, then the quarters are combined. This technique is repeated until a thorough mixing has occurred. The second method is the “bakers technique”, which simply entails

mixing the soil volume with hands covered by surgical gloves or sampling scoops. The “shake and bake technique” allows the cleanest mixing. This technique requires emptying the sample volume into a Ziploc® bag, sealing the bag, and then shaking the bag until the sample volume is thoroughly mixed. Note the qualities (color, texture, etc.) of the homogenized sample.

12. Place the sample in the designated sample container after the sample has been homogenized.
13. Label the sample container. Sample labels and tags are to be filled out with a permanent marker (*ball point pen ink bleeds when wet*). Use a grease pencil to fill out labels and tags for samples to be analyzed for VOCs. Additionally, it is recommended that the bottom of the sample jar be marked with the time of collection, the sample location, and the sampler’s initials, in case the labels are rendered illegible.
14. Place the sample jar into an appropriate sized Ziploc® bag.
15. Place the sample on ice, if applicable. Generally, soil samples do not require any preservative; however, unless told otherwise, it is always good practice to put samples on ice.
16. Decontaminate the sampling apparatus using the proper procedure (see Section 6.0 Decontamination of Sampling Equipment).
17. Complete the chain-of-custody form in a clear and concise manner.
18. Repeat steps 1-17 for each sample location.

5.0 SAMPLING DEVICES

Three common sampling devices used by START personnel include the sample scoop, the auger, and the thin-walled sampler/corer. The sample scoop includes both dedicated disposable plastic scoops and stainless steel scoops. Augers include bucket augers and hand augers. The thin-walled sampler/corer is the least used device of the three.

5.1 Scoops

Scoops make sampling quick and easy. Any time rough terrain is encountered, scoops are the ideal device. Generally disposable scoops are used because no wet decontamination is required. Never reuse dedicated scoops and always make sure proper decontamination has been performed for non-disposable sample scoops.

5.2 Bucket and Hand Augers

Augers are manually driven stainless steel sampling devices. The hand auger is a smaller version of the bucket auger. Augers tend to fluff sample volumes. Because of their design, augers are recommended for composite sampling. Augers are not recommended for VOC sampling because volatiles will be driven off.

5.2.1 Auger Sampling Procedures

1. Decontaminate augers before collecting first sample.
19. Cut a 12-inch hole in the plastic sheeting around sample location using scissors.
20. Discard debris and other surface material.
2. Place the auger perpendicular to the ground and twist the "T" handle in a clockwise rotation until the desired depth is achieved. To determine the depth of the sample measure the actual removed core or the depth of the newly bore hole.
3. Retrieve the specified sample volume. Any additional sample volume can be returned to the sample hole.
21. Place the sample volume into a homogenization pan and mix thoroughly.
22. Place the sample in the designated sample container. Note: Only VOA *containers are to be packed tightly*.
23. Label the sample container. Sample labels and tags are to be filled out with a permanent marker (*ball point pen ink bleeds when wet*). Use a grease pencil to fill out labels and tags for samples to be analyzed for VOCs. Additionally, it is recommended that the bottom of the sample jar be marked with the time of collection, the sample location, and the sampler's initials, in case the labels are rendered illegible.
4. Place the sample jar into an appropriate sized Ziploc® bag.
24. Place the sample on ice, if applicable. Generally, soil samples do not require any preservative; however, unless told otherwise, it is always good practice to put samples on ice.
25. Decontaminate the auger using the proper procedure (see Section 6.0 Decontamination of Sampling Equipment).
5. Complete the chain-of-custody form in a clear and concise manner.
26. Repeat steps 1-12 for each sample location.

Note: A major drawback for auger sampling is that roots, stones and other materials will not allow for good penetration. Different sample locations may have to be selected to collect samples.

5.3 Thin-Walled Sampler/Corer

The thin-walled sampler/corer is the least used of the common sampling devices. It works similar to an auger; however, it has a much smaller diameter and the core is visible from the side of the sampler barrel. This device is even more prone to refusal than the bucket auger. This device works well in moist soils with small grain sizes.

5.3.1 Corer Sampling Procedures

1. Decontaminate the augers before collecting the first sample.
27. Cut a 12-inch hole into plastic sheeting around sample location.
2. Discard debris and other surface material.
28. Place the thin-walled sampler perpendicular to the ground and twist the "T" handle in a clockwise rotation until desired depth is achieved.
29. Retrieve the specified sample volume. Any additional sample volume can be returned to the sample hole.
3. Place the sample volume into a homogenization pan and mix thoroughly.
4. Place the sample in the designated sample container.
5. Label the sample container. Sample labels and tags are to be filled out with a permanent marker only (*ball point pen ink bleeds when wet*). Use a grease pencil to fill out labels and tags for samples to be analyzed for VOCs. Additionally, it is recommended that the bottom of the sample jar be marked with the time of collection, the sample location, and the sampler's initials, in case the labels are rendered illegible.
6. Place the sample jar in an appropriate sized Ziploc® bag.
7. Place the sample on ice, if applicable. Generally, soil samples do not require any preservative; however, unless told otherwise, it is always good practice to put samples on ice.
8. Decontaminate the auger using the proper procedure (see Section 6.0 Decontamination of Sampling Equipment).
9. Complete the chain-of-custody form.
10. Repeat steps 1-12 for each sample location.

6.0 DECONTAMINATION OF SAMPLING EQUIPMENT

This procedure is arguably the most important step in sound sample collection. Poor decontamination will result in cross-contamination and inaccurate sample results. The adequacy of the decontamination is generally tested by daily rinsate blanks. The following procedures pertain to the three sampling devices noted in this SOP.

1. Determine an area to be used as a decontamination station and lay plastic sheeting down.
2. Fill and pressurize a garden sprayer with distilled water. Fill one decontamination bucket with distilled water and Alconox®. Fill and pressurize another garden sprayer (if available) with de-ionized water for the final rinse.
3. Brush off soil residue from the sampling device with a dry brush.
4. Quickly spray the sampling device with the garden sprayer to loosen the soil before placing the sampling device into the soapy water.

5. Put the sampling device into soapy water bucket. Remove soil residue with a long-handled brush, toilet brush or cleaning device. Spray off soap residue with distilled water.
6. Place the sampling device into another bucket and spray the sampling device thoroughly again with distilled water.
7. Final rinse the sampling device with de-ionized water. If solvents or weak acids are used for the final rinse, see START SOP No. 406, Investigative Derived Waste.
8. If stainless steel scoops are used, use multiple scoops so that decontamination does not have to be after every hole.
9. Repeat steps 1-7.
10. Contact the OSC to determine if decontaminated water may be dumped on site. Be sure to address this issue before the sampling event occurs. All PPE and other refuse generated can be disposed as solid industrial waste.

7.0 REFERENCES

EPA. 1991. *Compendium of Emergency Response Team (ERT) Soil Sampling and Surface Geophysic Procedures*. Office of Solid Waste and Emergency Response, Washington, DC. EPA/540/P-91/006.

EPA 1991. *Removal Program Representative Sampling Guidance*. Volume 1 - Soil. Office of Solid Waste and Emergency Response, Washington, DC. 9630.4-10 P892-963408.

WESTON® (Roy F. Weston, Inc.) 1993. *Standard Practices Manual for Soil Sampling With a Spade, Scoop and Stainless Surface Soil Sampler Auger and Tube Sampler*. West Chester, PA.

Attachment: 1

ATTACHMENT 1

SOIL SAMPLING DATA SHEET

Sample Number(s): _____

Date: _____

Time: _____

Soil Sampling Data Sheet

Site Name: _____ Sampler: _____

Sample Depth: _____ Surface (0-0.5 ft) _____ Shallow (0.5-5.0 ft)

Sample Method(Circle One):_____Scoop (2,3,4,5,6,7,8,A,C,+) _____ Hand
Auger(2,3,4,5,6,7,B,+, -)

_____Slide-Hammer (1,2,3,4,5,6,7,8,A,B,+, -) _____ Open Tube (A,+, -)

_____Split/Solid Tube (1,2,3,4,5,6,7,8,A,B, -) _____ Thin-Wall

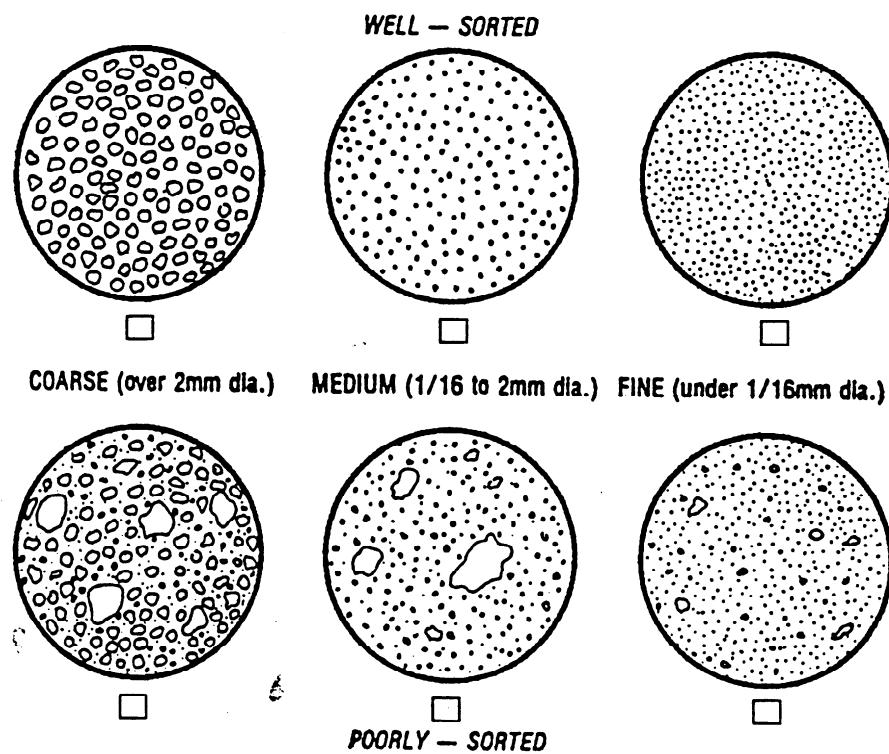
Tube(8,A,-)

Preferred Methods

1 - Volatiles	5 - PCBs	A - Grab	+ - Surface
2 - Semi-Volatiles	6 - TPH	B - Composite (Vertical)	- - Shallow
3 - Primary Metals	7 - Rad	C - composite (Areal)	
4 - Pesticides	8 - Geotechnical		

Soil Description (Munsell): Chart _____ Value _____ Hue _____

Grain Size and Distribution:



ATTACHMENT D

TABLES

Table 1
Soil Sampling X-Ray Fluorescence Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name:		Arsenic	Chromium	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Zinc
Residential RML, HQ=3:		3.9E+01	3.5E+05	9.4E+03	1.6E+05	4.0E+02	5.5E+03	3.0E+01	4.6E+03	1.2E+03	7.0E+04
Units:		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Location	Location ID										
Soccer Field A	BL-SO01	<LOD +/- 16	<LOD +/- 90	56 +/- 10	13700 +/- 233	62 +/- 5	258 +/- 37	<LOD +/- 11	42 +/- 14	<LOD +/- 5	110 +/- 8
		<LOD +/- 21	<LOD +/- 101	62 +/- 10	19608 312	134 +/- 7	374 +/- 44	22 +/- 5	<LOD +/- 45	<LOD +/- 5	186 +/- 11
		<LOD +/- 21	<LOD +/- 90	81 +/- 11	17281 +/- 287	131 +/- 7	278 +/- 40	<LOD +/- 13	<LOD +/- 43	<LOD +/- 5	196 +/- 11
	BL-SO02	<LOD +/- 14	<LOD +/- 89	31 +/- 9	13476 +/- 231	54 +/- 5	196 +/- 35	<LOD +/- 11	<LOD +/- 39	<LOD +/- 4	56 +/- 6
		<LOD +/- 17	<LOD +/- 98	37 +/- 9	11297 +/- 200	86 +/- 6	338 +/- 39	<LOD +/- 12	<LOD +/- 37	<LOD +/- 5	97 +/- 8
		18 +/- 5	<LOD +/- 104	47 +/- 10	15291 +/- 251	68 +/- 6	184 +/- 35	<LOD +/- 13	<LOD +/- 39	7 +/- 2	98 +/- 8
	BL-SO03	20 +/- 6	<LOD +/- 94	<LOD +/- 29	12615 +/- 234	83 +/- 6	278 +/- 40	<LOD +/- 13	<LOD +/- 39	<LOD +/- 5	118 +/- 9
		<LOD +/- 19	<LOD +/- 96	33 +/- 9	14512 +/- 248	109 +/- 7	269 +/- 39	15 +/- 5	<LOD +/- 40	<LOD +/- 5	140 +/- 9
		<LOD +/- 17	<LOD +/- 101	50 +/- 10	13035 +/- 233	74 +/- 6	301 +/- 40	<LOD +/- 13	<LOD +/- 38	<LOD +/- 5	111 +/- 9
	BL-SO04	18 +/- 6	<LOD +/- 104	33 +/- 10	24770 +/- 383	74 +/- 6	381 +/- 46	<LOD +/- 13	<LOD +/- 47	<LOD +/- 5	83 +/- 8
		24 +/- 6	<LOD +/- 97	52 +/- 10	17036 +/- 268	72 +/- 6	291 +/- 39	<LOD +/- 12	<LOD +/- 42	6 +/- 2	118 +/- 8
		19 +/- 6	<LOD +/- 99	43 +/- 9	17541 +/- 276	93 +/- 6	199 +/- 36	<LOD +/- 13	<LOD +/- 40	<LOD +/- 5	126 +/- 9
	BL-SO05	<LOD +/- 16	<LOD +/- 105	32 +/- 9	15275 +/- 251	66 +/- 6	513 +/- 46	<LOD +/- 12	<LOD +/- 37	<LOD +/- 5	142 +/- 9
		<LOD +/- 16	<LOD +/- 94	<LOD +/- 27	15626 +/- 258	63 +/- 6	603 +/- 49	<LOD +/- 11	<LOD +/- 39	<LOD +/- 4	103 +/- 8
		<LOD +/- 18	<LOD +/- 102	36 +/- 9	14560 +/- 245	99 +/- 7	321 +/- 40	<LOD +/- 13	<LOD +/- 37	<LOD +/- 5	164 +/- 10
	BL-SO06	<LOD +/- 18	<LOD +/- 106	46 +/- 10	19036 +/- 303	96 +/- 6	587 +/- 50	<LOD +/- 10	<LOD +/- 43	<LOD +/- 5	138 +/- 9
		<LOD +/- 20	<LOD +/- 94	84 +/- 11	14594 +/- 247	126 +/- 7	345 +/- 41	<LOD +/- 15	<LOD +/- 39	<LOD +/- 5	142 +/- 9
		<LOD +/- 19	<LOD +/- 88	45 +/- 10	14140 +/- 240	101 +/- 7	405 +/- 43	<LOD +/- 11	<LOD +/- 37	<LOD +/- 5	122 +/- 9
	BL-SO07	<LOD +/- 15	<LOD +/- 104	30 +/- 10	11669 +/- 218	44 +/- 5	396 +/- 44	<LOD +/- 13	<LOD +/- 41	<LOD +/- 5	54 +/- 7
		<LOD +/- 16	<LOD +/- 104	30 +/- 9	12646 +/- 218	80 +/- 6	428 +/- 43	15 +/- 5	<LOD +/- 39	<LOD +/- 5	115 +/- 8
		<LOD +/- 14	<LOD +/- 112	34 +/- 10	12336 +/- 225	44 +/- 5	364 +/- 43	<LOD +/- 13	<LOD +/- 39	<LOD +/- 4	79 +/- 7
	BL-SO08	<LOD +/- 17	<LOD +/- 96	32 +/- 9	10850 +/- 192	91 +/- 6	358 +/- 39	<LOD +/- 12	47 +/- 13	<LOD +/- 5	91 +/- 7
		<LOD +/- 18	<LOD +/- 87	<LOD +/- 28	10940 +/- 203	85 +/- 6	286 +/- 38	<LOD +/- 12	<LOD +/- 38	<LOD +/- 4	90 +/- 8
		<LOD +/- 20	<LOD +/- 102	48 +/- 10	13164 +/- 230	122 +/- 7	342 +/- 41	<LOD +/- 12	<LOD +/- 39	<LOD +/- 5	102 +/- 8
	BL-SO35	<LOD +/- 16	<LOD +/- 88	28 +/- 9	16188 +/- 271	57 +/- 5	348 +/- 42	<LOD +/- 13	<LOD +/- 39	<LOD +/- 5	106 +/- 8
		<LOD +/- 22	<LOD +/- 88	44 +/- 10	13662 +/- 244	143 +/- 8	394 +/- 44	<LOD +/- 14	<LOD +/- 39	<LOD +/- 5	217 +/- 12
		<LOD +/- 20	<LOD +/- 101	<LOD +/- 29	13214 +/- 242	100 +/- 7	359 +/- 44	<LOD +/- 13	<LOD +/- 42	<LOD +/- 5	131 +/- 9
Soccer Field B	BL-SO09	<LOD +/- 13	<LOD +/- 108	<LOD +/- 29	13529 +/- 245	27 +/- 5	277 +/- 41	<LOD +/- 11	<LOD +/- 40	<LOD +/- 5	62 +/- 7
		<LOD +/- 13	<LOD +/- 109	<LOD +/- 28	13537 +/- 248	22 +/- 4	385 +/- 45	<LOD +/- 12	<LOD +/- 39	<LOD +/- 4	60 +/- 7
		<LOD +/- 16	<LOD +/- 94	<LOD +/- 27	13395 +/- 239	71 +/- 6	262 +/- 39	<LOD +/- 12	<LOD +/- 38	<LOD +/- 4	75 +/- 7
	BL-SO10	20 +/- 5	<LOD +/- 115	<LOD +/- 28	15414 +/- 281	21 +/- 5	398 +/- 47	<LOD +/- 13	<LOD +/- 40	<LOD +/- 4	80 +/- 8
		<LOD +/- 16	<LOD +/- 106	33 +/- 10	16766 +/- 295	61 +/- 6	485 +/- 50	<LOD +/- 13	<LOD +/- 44	<LOD +/- 5	105 +/- 9
		<LOD +/- 13	<LOD +/- 91	<LOD +/- 25	14625 +/- 244	36 +/- 5	388 +/- 42	<LOD +/- 12	<LOD +/- 39	<LOD +/- 4	77 +/- 7
	BL-SO11	<LOD +/- 14	<LOD +/- 109	<LOD +/- 28	14253 +/- 257	31 +/- 5	377 +/- 45	<LOD +/- 12	<LOD +/- 43	<LOD +/- 5	71 +/- 7
		<LOD +/- 17	<LOD +/- 99	<LOD +/- 27	12956 +/- 236	77 +/- 6	286 +/- 40	<LOD +/- 13	<LOD +/- 42	<LOD +/- 5	114 +/- 9
		17 +/- 5	<LOD +/- 103	<LOD +/- 27	14387 +/- 246	46 +/- 5	313 +/- 41	<LOD +/- 12	<LOD +/- 41	<LOD +/- 4	84 +/- 7

Table 1
Soil Sampling X-Ray Fluorescence Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name:		Arsenic	Chromium	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Zinc
Residential RML, HQ=3:		3.9E+01	3.5E+05	9.4E+03	1.6E+05	4.0E+02	5.5E+03	3.0E+01	4.6E+03	1.2E+03	7.0E+04
Units:		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Location	Location ID										
Soccer Field B (Continued)	BL-SO12	<LOD +/- 14	<LOD +/- 100	29 +/- 9	16163 +/- 262	40 +/- 5	444 +/- 44	<LOD +/- 12	<LOD +/- 38	<LOD +/- 4	77 +/- 7
		<LOD +/- 13	<LOD +/- 112	<LOD +/- 28	13396 +/- 256	22 +/- 5	302 +/- 44	<LOD +/- 13	<LOD +/- 41	<LOD +/- 5	55 +/- 7
		<LOD +/- 15	<LOD +/- 112	<LOD +/- 28	14885 +/- 268	46 +/- 5	381 +/- 46	<LOD +/- 9	<LOD +/- 41	<LOD +/- 5	88 +/- 8
	BL-SO13	<LOD +/- 20	<LOD +/- 119	90 +/- 12	21233 +/- 350	106 +/- 7	937 +/- 63	<LOD +/- 14	<LOD +/- 46	<LOD +/- 5	293 +/- 14
		<LOD +/- 17	<LOD +/- 108	35 +/- 10	19285 +/- 325	76 +/- 6	957 +/- 64	<LOD +/- 14	<LOD +/- 47	<LOD +/- 5	134 +/- 10
		<LOD +/- 16	<LOD +/- 112	47 +/- 10	18275 +/- 313	57 +/- 6	1034 +/- 66	<LOD +/- 12	<LOD +/- 42	<LOD +/- 5	108 +/- 9
	BL-SO14	<LOD +/- 20	135 +/- 42	84 +/- 12	18670 +/- 318	112 +/- 7	516 +/- 52	<LOD +/- 13	<LOD +/- 46	<LOD +/- 5	188 +/- 11
		<LOD +/- 23	<LOD +/- 110	93 +/- 12	19631 +/- 332	148 +/- 8	676 +/- 56	<LOD +/- 13	<LOD +/- 45	<LOD +/- 5	231 +/- 12
		<LOD +/- 15	<LOD +/- 96	39 +/- 10	16273 +/- 273	51 +/- 5	723 +/- 54	<LOD +/- 11	<LOD +/- 40	<LOD +/- 5	112 +/- 8
	BL-SO15	<LOD +/- 17	<LOD +/- 110	49 +/- 10	17253 +/- 287	81 +/- 6	953 +/- 61	<LOD +/- 12	<LOD +/- 42	<LOD +/- 5	149 +/- 10
		<LOD +/- 20	<LOD +/- 95	49 +/- 10	16307 +/- 275	113 +/- 7	712 +/- 54	<LOD +/- 14	<LOD +/- 39	<LOD +/- 5	183 +/- 11
		<LOD +/- 21	<LOD +/- 99	52 +/- 10	18215 +/- 299	137 +/- 8	881 +/- 59	<LOD +/- 13	<LOD +/- 41	<LOD +/- 5	166 +/- 10
	BL-SO16	<LOD +/- 19	<LOD +/- 112	72 +/- 11	16530 +/- 284	87 +/- 7	667 +/- 54	<LOD +/- 13	<LOD +/- 40	<LOD +/- 4	156 +/- 10
		23 +/- 7	132 +/- 41	62 +/- 11	17864 +/- 308	123 +/- 8	843 +/- 61	<LOD +/- 13	<LOD +/- 46	<LOD +/- 5	181 +/- 11
		<LOD +/- 18	<LOD +/- 99	43 +/- 10	16084 +/- 286	83 +/- 7	741 +/- 57	<LOD +/- 11	<LOD +/- 40	<LOD +/- 5	125 +/- 9
	BL-SO36	<LOD +/- 15	<LOD +/- 110	<LOD +/- 29	17750 +/- 304	50 +/- 6	710 +/- 56	<LOD +/- 14	<LOD +/- 44	<LOD +/- 5	125 +/- 9
		<LOD +/- 16	<LOD +/- 96	30 +/- 9	16373 +/- 272	63 +/- 6	579 +/- 49	<LOD +/- 10	<LOD +/- 40	<LOD +/- 4	117 +/- 9
		<LOD +/- 17	<LOD +/- 111	34 +/- 10	17512 +/- 295	71 +/- 6	517 +/- 50	<LOD +/- 12	<LOD +/- 41	<LOD +/- 5	120 +/- 9
Soccer Field C	BL-SO17	<LOD +/- 13	<LOD +/- 88	<LOD +/- 27	8551 +/- 169	35 +/- 5	259 +/- 36	<LOD +/- 13	<LOD +/- 37	<LOD +/- 5	38 +/- 6
		<LOD +/- 23	<LOD +/- 118	60 +/- 11	17899 +/- 305	164 +/- 9	519 +/- 51	<LOD +/- 14	<LOD +/- 44	<LOD +/- 5	169 +/- 11
		<LOD +/- 21	<LOD +/- 120	81 +/- 12	25813 +/- 414	118 +/- 8	543 +/- 54	<LOD +/- 13	<LOD +/- 48	<LOD +/- 5	161 +/- 10
	BL-SO17D	<LOD +/- 13	<LOD +/- 94	<LOD +/- 28	10284 +/- 199	32 +/- 5	357 +/- 42	<LOD +/- 12	<LOD +/- 37	<LOD +/- 5	52 +/- 6
		<LOD +/- 19	<LOD +/- 100	36 +/- 10	16751 +/- 282	90 +/- 7	409 +/- 45	<LOD +/- 14	<LOD +/- 43	<LOD +/- 5	118 +/- 9
		<LOD +/- 17	<LOD +/- 88	33 +/- 10	12127 +/- 220	88 +/- 6	251 +/- 38	<LOD +/- 11	<LOD +/- 39	<LOD +/- 4	84 +/- 8
	BL-SO18	<LOD +/- 15	<LOD +/- 104	<LOD +/- 28	16514 +/- 280	46 +/- 5	366 +/- 44	<LOD +/- 12	<LOD +/- 39	<LOD +/- 5	92 +/- 8
		<LOD +/- 15	<LOD +/- 107	<LOD +/- 26	16587 +/- 276	54 +/- 5	422 +/- 45	<LOD +/- 14	<LOD +/- 39	<LOD +/- 4	84 +/- 7
		<LOD +/- 15	<LOD +/- 101	<LOD +/- 27	13119 +/- 230	56 +/- 5	402 +/- 43	<LOD +/- 13	<LOD +/- 38	<LOD +/- 4	103 +/- 8
	BL-SO19	<LOD +/- 22	<LOD +/- 106	100 +/- 12	17511 +/- 306	133 +/- 8	382 +/- 47	<LOD +/- 14	<LOD +/- 43	<LOD +/- 5	238 +/- 13
		<LOD +/- 19	133 +/- 42	75 +/- 12	17614 +/- 313	115 +/- 8	532 +/- 53	<LOD +/- 15	<LOD +/- 42	<LOD +/- 5	111 +/- 9
		<LOD +/- 19	<LOD +/- 111	71 +/- 11	17617 +/- 292	105 +/- 7	495 +/- 48	<LOD +/- 15	<LOD +/- 44	<LOD +/- 5	183 +/- 11
	BL-SO20	<LOD +/- 18	<LOD +/- 112	75 +/- 11	17939 +/- 302	84 +/- 6	540 +/- 51	<LOD +/- 12	<LOD +/- 42	<LOD +/- 5	141 +/- 10
		<LOD +/- 20	<LOD +/- 107	89 +/- 12	18364 +/- 313	113 +/- 7	530 +/- 51	<LOD +/- 14	<LOD +/- 46	<LOD +/- 5	186 +/- 11
		<LOD +/- 21	<LOD +/- 113	84 +/- 12	18276 +/- 309	127 +/- 8	481 +/- 49	<LOD +/- 13	<LOD +/- 47	<LOD +/- 5	193 +/- 11

Table 1
Soil Sampling X-Ray Fluorescence Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name:		Arsenic	Chromium	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Zinc
Residential RML, HQ=3:		3.9E+01	3.5E+05	9.4E+03	1.6E+05	4.0E+02	5.5E+03	3.0E+01	4.6E+03	1.2E+03	7.0E+04
Units:		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Location	Location ID										
Soccer Field C (Continued)	BL-SO21	<LOD +/- 22	<LOD +/- 101	46 +/- 10	17122 +/- 294	143 +/- 8	596 +/- 52	<LOD +/- 13	<LOD +/- 45	<LOD +/- 5	294 +/- 14
		<LOD +/- 20	<LOD +/- 108	45 +/- 10	17598 +/- 293	112 +/- 7	495 +/- 48	<LOD +/- 13	<LOD +/- 45	6 +/- 2	212 +/- 11
		<LOD +/- 17	<LOD +/- 104	54 +/- 11	18118 +/- 307	82 +/- 6	447 +/- 48	<LOD +/- 14	<LOD +/- 44	<LOD +/- 5	173 +/- 11
	BL-SO22	<LOD +/- 17	<LOD +/- 98	42 +/- 10	14979 +/- 247	92 +/- 6	432 +/- 43	<LOD +/- 13	<LOD +/- 40	<LOD +/- 4	127 +/- 9
		<LOD +/- 18	<LOD +/- 97	53 +/- 10	16537 +/- 278	83 +/- 6	381 +/- 44	<LOD +/- 13	<LOD +/- 41	<LOD +/- 5	126 +/- 9
		<LOD +/- 19	<LOD +/- 98	44 +/- 10	14933 +/- 263	95 +/- 7	423 +/- 46	<LOD +/- 13	<LOD +/- 41	<LOD +/- 4	119 +/- 9
	BL-SO23	<LOD +/- 29	<LOD +/- 108	154 +/- 14	17204 +/- 295	274 +/- 11	251 +/- 41	<LOD +/- 15	<LOD +/- 43	<LOD +/- 5	364 +/- 15
		<LOD +/- 14	<LOD +/- 103	<LOD +/- 27	14538 +/- 260	42 +/- 5	496 +/- 49	<LOD +/- 13	<LOD +/- 40	<LOD +/- 5	76 +/- 7
		<LOD +/- 20	<LOD +/- 106	<LOD +/- 27	14580 +/- 257	111 +/- 7	138 +/- 35	<LOD +/- 14	<LOD +/- 41	<LOD +/- 5	141 +/- 10
	BL-SO24	<LOD +/- 16	<LOD +/- 105	<LOD +/- 30	16540 +/- 294	58 +/- 6	498 +/- 50	<LOD +/- 16	<LOD +/- 43	<LOD +/- 5	140 +/- 10
		<LOD +/- 18	<LOD +/- 93	<LOD +/- 27	13619 +/- 246	87 +/- 7	322 +/- 42	<LOD +/- 13	<LOD +/- 44	<LOD +/- 6	113 +/- 9
		<LOD +/- 16	<LOD +/- 102	<LOD +/- 27	15892 +/- 279	67 +/- 6	434 +/- 47	<LOD +/- 14	<LOD +/- 41	<LOD +/- 5	118 +/- 9
	BL-SO25	<LOD +/- 22	<LOD +/- 99	86 +/- 12	17712 +/- 301	144 +/- 8	505 +/- 50	<LOD +/- 12	<LOD +/- 46	<LOD +/- 5	227 +/- 12
		<LOD +/- 18	<LOD +/- 110	<LOD +/- 29	14364 +/- 259	86 +/- 7	322 +/- 43	<LOD +/- 13	<LOD +/- 42	<LOD +/- 5	144 +/- 10
		<LOD +/- 19	<LOD +/- 103	<LOD +/- 29	17956 +/- 320	78 +/- 7	412 +/- 49	<LOD +/- 15	<LOD +/- 43	<LOD +/- 5	136 +/- 10
Soccer Field D	BL-SO26	<LOD +/- 25	<LOD +/- 101	<LOD +/- 28	15023 +/- 271	191 +/- 9	123 +/- 35	<LOD +/- 14	<LOD +/- 41	<LOD +/- 4	185 +/- 11
		<LOD +/- 18	<LOD +/- 102	<LOD +/- 26	14988 +/- 256	93 +/- 7	235 +/- 38	<LOD +/- 14	<LOD +/- 39	<LOD +/- 5	162 +/- 10
		<LOD +/- 22	<LOD +/- 97	33 +/- 10	20270 +/- 343	141 +/- 8	303 +/- 44	<LOD +/- 12	<LOD +/- 43	<LOD +/- 5	160 +/- 10
	BL-SO26D	<LOD +/- 18	<LOD +/- 97	<LOD +/- 27	14334 +/- 248	85 +/- 6	247 +/- 38	<LOD +/- 10	<LOD +/- 38	<LOD +/- 5	139 +/- 9
		<LOD +/- 19	<LOD +/- 100	<LOD +/- 26	16718 +/- 279	98 +/- 7	199 +/- 37	<LOD +/- 13	<LOD +/- 41	<LOD +/- 5	112 +/- 8
		<LOD +/- 24	<LOD +/- 105	57 +/- 10	17347 +/- 287	186 +/- 9	249 +/- 40	<LOD +/- 13	<LOD +/- 43	<LOD +/- 6	161 +/- 10
	BL-SO27	<LOD +/- 14	<LOD +/- 95	32 +/- 9	12852 +/- 229	42 +/- 5	498 +/- 47	<LOD +/- 13	<LOD +/- 38	<LOD +/- 5	79 +/- 7
		<LOD +/- 16	<LOD +/- 90	<LOD +/- 26	15820 +/- 262	67 +/- 6	314 +/- 40	<LOD +/- 11	<LOD +/- 40	<LOD +/- 4	73 +/- 7
		<LOD +/- 13	<LOD +/- 91	<LOD +/- 27	13664 +/- 234	35 +/- 5	515 +/- 46	<LOD +/- 12	<LOD +/- 39	<LOD +/- 4	74 +/- 7
	BL-SO28	<LOD +/- 15	<LOD +/- 84	<LOD +/- 26	15278 +/- 256	58 +/- 5	351 +/- 41	<LOD +/- 11	<LOD +/- 42	<LOD +/- 4	97 +/- 8
		<LOD +/- 18	<LOD +/- 85	<LOD +/- 27	13075 +/- 227	92 +/- 6	261 +/- 37	<LOD +/- 12	<LOD +/- 39	<LOD +/- 4	96 +/- 8
		<LOD +/- 19	<LOD +/- 99	31 +/- 9	15277 +/- 258	104 +/- 7	343 +/- 42	<LOD +/- 13	<LOD +/- 37	<LOD +/- 5	116 +/- 9
	BL-SO29	<LOD +/- 13	<LOD +/- 108	<LOD +/- 25	14025 +/- 246	26 +/- 5	432 +/- 45	<LOD +/- 14	<LOD +/- 39	<LOD +/- 4	67 +/- 7
		16 +/- 4	<LOD +/- 94	<LOD +/- 26	13408 +/- 238	20 +/- 4	520 +/- 48	<LOD +/- 12	<LOD +/- 37	<LOD +/- 5	61 +/- 7
		14 +/- 4	<LOD +/- 93	<LOD +/- 26	12869 +/- 232	20 +/- 4	424 +/- 44	<LOD +/- 11	<LOD +/- 37	<LOD +/- 4	64 +/- 7
	BL-SO30	<LOD +/- 16	<LOD +/- 98	<LOD +/- 27	15601 +/- 268	65 +/- 6	294 +/- 41	<LOD +/- 13	<LOD +/- 39	<LOD +/- 5	120 +/- 9
		<LOD +/- 14	<LOD +/- 92	<LOD +/- 25	13681 +/- 232	53 +/- 5	388 +/- 42	<LOD +/- 12	<LOD +/- 38	<LOD +/- 4	77 +/- 7
		<LOD +/- 16	<LOD +/- 100	<LOD +/- 27	14184 +/- 251	49 +/- 5	341 +/- 42	<LOD +/- 11	<LOD +/- 39	<LOD +/- 5	87 +/- 8
	BL-SO31	<LOD +/- 12	<LOD +/- 96	<LOD +/- 25	13327 +/- 236	21 +/- 4	469 +/- 46	<LOD +/- 11	<LOD +/- 40	<LOD +/- 4	67 +/- 7
		<LOD +/- 12	<LOD +/- 101	<LOD +/- 25	14346 +/- 260	22 +/- 5	447 +/- 47	<LOD +/- 11	<LOD +/- 38	<LOD +/- 5	63 +/- 7
		<LOD +/- 13	<LOD +/- 98	<LOD +/- 27	12860 +/- 228	27 +/- 5	387 +/- 43	<LOD +/- 13	<LOD +/- 39	<LOD +/- 4	69 +/- 7

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Chemical Name:		Arsenic	Chromium	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Zinc
Residential RML, HQ=3:		3.9E+01	3.5E+05	9.4E+03	1.6E+05	4.0E+02	5.5E+03	3.0E+01	4.6E+03	1.2E+03	7.0E+04
Units:		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Location	Location ID										
Soccer Field D (Continued)	BL-SO32	<LOD +/- 13	<LOD +/- 94	<LOD +/- 25	12030 +/- 208	44 +/- 5	419 +/- 42	<LOD +/- 12	<LOD +/- 38	<LOD +/- 5	58 +/- 6
		<LOD +/- 13	<LOD +/- 99	<LOD +/- 27	15310 +/- 261	29 +/- 5	449 +/- 46	<LOD +/- 11	<LOD +/- 38	<LOD +/- 5	46 +/- 6
		<LOD +/- 14	<LOD +/- 92	<LOD +/- 24	13988 +/- 243	34 +/- 5	307 +/- 40	<LOD +/- 11	<LOD +/- 39	<LOD +/- 4	56 +/- 6
	BL-SO33	<LOD +/- 12	<LOD +/- 101	<LOD +/- 27	13263 +/- 244	21 +/- 4	613 +/- 52	<LOD +/- 12	<LOD +/- 41	<LOD +/- 4	55 +/- 7
		<LOD +/- 12	234 +/- 42	29 +/- 9	12075 +/- 216	33 +/- 5	402 +/- 44	<LOD +/- 12	<LOD +/- 37	<LOD +/- 4	58 +/- 7
		<LOD +/- 12	<LOD +/- 92	<LOD +/- 26	12827 +/- 232	24 +/- 4	339 +/- 42	<LOD +/- 12	<LOD +/- 38	<LOD +/- 4	59 +/- 7
	BL-SO34	14 +/- 4	<LOD +/- 86	28 +/- 9	12361 +/- 209	23 +/- 4	455 +/- 42	<LOD +/- 11	<LOD +/- 37	<LOD +/- 4	73 +/- 7
		<LOD +/- 12	<LOD +/- 108	<LOD +/- 26	12783 +/- 231	27 +/- 5	419 +/- 45	<LOD +/- 12	<LOD +/- 41	<LOD +/- 5	73 +/- 7
		<LOD +/- 15	<LOD +/- 77	<LOD +/- 27	14166 +/- 246	52 +/- 5	331 +/- 41	<LOD +/- 12	<LOD +/- 40	<LOD +/- 5	102 +/- 8
Baseball Diamond	BL-SO37	<LOD +/- 12	<LOD +/- 113	<LOD +/- 31	15901 +/- 295	<LOD +/- 13	287 +/- 45	<LOD +/- 14	<LOD +/- 43	<LOD +/- 5	36 +/- 6
		<LOD +/- 12	<LOD +/- 116	<LOD +/- 29	14603 +/- 276	14 +/- 4	287 +/- 44	<LOD +/- 15	<LOD +/- 45	<LOD +/- 5	48 +/- 7
		<LOD +/- 12	<LOD +/- 110	<LOD +/- 28	15959 +/- 293	<LOD +/- 13	297 +/- 44	<LOD +/- 14	<LOD +/- 44	<LOD +/- 5	33 +/- 6
	BL-SO38	<LOD +/- 13	<LOD +/- 130	<LOD +/- 30	14590 +/- 288	<LOD +/- 14	278 +/- 46	<LOD +/- 14	<LOD +/- 45	<LOD +/- 5	36 +/- 6
		<LOD +/- 12	<LOD +/- 94	<LOD +/- 29	14584 +/- 269	16 +/- 4	349 +/- 45	16 +/- 5	<LOD +/- 45	<LOD +/- 5	51 +/- 7
		<LOD +/- 12	<LOD +/- 94	<LOD +/- 27	12385 +/- 238	<LOD +/- 13	287 +/- 41	<LOD +/- 12	<LOD +/- 39	<LOD +/- 6	43 +/- 6
	BL-SO39	<LOD +/- 12	<LOD +/- 110	<LOD +/- 30	16210 +/- 295	20 +/- 5	397 +/- 48	<LOD +/- 14	<LOD +/- 43	<LOD +/- 5	48 +/- 7
		<LOD +/- 12	<LOD +/- 91	<LOD +/- 24	15376 +/- 253	22 +/- 4	274 +/- 38	<LOD +/- 13	<LOD +/- 39	<LOD +/- 4	54 +/- 6
		<LOD +/- 13	<LOD +/- 106	<LOD +/- 32	14506 +/- 285	17 +/- 5	227 +/- 43	<LOD +/- 13	<LOD +/- 43	<LOD +/- 5	29 +/- 6
	BL-SO40	<LOD +/- 12	<LOD +/- 102	<LOD +/- 29	13321 +/- 255	16 +/- 5	378 +/- 46	<LOD +/- 14	<LOD +/- 43	<LOD +/- 6	48 +/- 7
		<LOD +/- 12	<LOD +/- 93	<LOD +/- 28	13124 +/- 247	19 +/- 5	294 +/- 42	<LOD +/- 14	<LOD +/- 38	<LOD +/- 5	52 +/- 7
		<LOD +/- 11	<LOD +/- 104	<LOD +/- 28	12966 +/- 246	<LOD +/- 12	305 +/- 43	<LOD +/- 13	<LOD +/- 40	<LOD +/- 5	43 +/- 6
Southwest Playground	BL-SO40D	<LOD +/- 12	<LOD +/- 111	37 +/- 10	14106 +/- 261	23 +/- 5	366 +/- 45	<LOD +/- 13	<LOD +/- 45	<LOD +/- 5	42 +/- 6
		<LOD +/- 11	<LOD +/- 119	<LOD +/- 29	13273 +/- 252	<LOD +/- 12	317 +/- 44	<LOD +/- 12	<LOD +/- 43	<LOD +/- 6	29 +/- 6
		<LOD +/- 12	<LOD +/- 120	<LOD +/- 30	14630 +/- 274	<LOD +/- 13	280 +/- 44	<LOD +/- 14	<LOD +/- 43	<LOD +/- 5	41 +/- 6
	BL-SO41	<LOD +/- 24	<LOD +/- 109	72 +/- 11	15893 +/- 272	187 +/- 9	396 +/- 45	<LOD +/- 13	<LOD +/- 44	<LOD +/- 5	240 +/- 12
		<LOD +/- 24	<LOD +/- 100	90 +/- 11	14446 +/- 250	198 +/- 9	410 +/- 44	<LOD +/- 14	<LOD +/- 39	<LOD +/- 5	239 +/- 12
		<LOD +/- 24	<LOD +/- 102	59 +/- 11	18364 +/- 301	177 +/- 9	404 +/- 45	<LOD +/- 13	<LOD +/- 42	<LOD +/- 5	236 +/- 12
	BL-SO42	<LOD +/- 17	<LOD +/- 106	41 +/- 10	13484 +/- 247	74 +/- 6	335 +/- 43	<LOD +/- 13	<LOD +/- 39	<LOD +/- 5	117 +/- 9
		<LOD +/- 17	<LOD +/- 87	42 +/- 10	13225 +/- 235	67 +/- 6	368 +/- 42	<LOD +/- 13	<LOD +/- 41	<LOD +/- 5	123 +/- 9
		<LOD +/- 17	<LOD +/- 109	<LOD +/- 29	13761 +/- 245	79 +/- 6	325 +/- 42	<LOD +/- 13	<LOD +/- 43	<LOD +/- 5	127 +/- 9
	BL-SO43	<LOD +/- 19	<LOD +/- 116	37 +/- 10	18256 +/- 320	85 +/- 7	381 +/- 48	<LOD +/- 13	<LOD +/- 42	<LOD +/- 5	123 +/- 9
		<LOD +/- 15	<LOD +/- 90	<LOD +/- 24	12364 +/- 217	54 +/- 5	237 +/- 36	<LOD +/- 11	<LOD +/- 37	<LOD +/- 5	108 +/- 8
		<LOD +/- 17	<LOD +/- 116	57 +/- 11	16272 +/- 282	73 +/- 6	337 +/- 44	<LOD +/- 13	<LOD +/- 44	<LOD +/- 5	128 +/- 9
	BL-SO44	<LOD +/- 14	<LOD +/- 105	<LOD +/- 27	12959 +/- 225	43 +/- 5	413 +/- 43	<LOD +/- 12	<LOD +/- 38	<LOD +/- 5	87 +/- 7
		<LOD +/- 14	<LOD +/- 96	<LOD +/- 27	11745 +/- 215	41 +/- 5	213 +/- 36	<LOD +/- 13	<LOD +/- 38	<LOD +/- 4	92 +/- 8
		<LOD +/- 14	<LOD +/- 89	<LOD +/- 26	12240 +/- 217	47 +/- 5	370 +/- 41	<LOD +/- 12	<LOD +/- 39	<LOD +/- 4	97 +/- 8

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South Bend, St. Joseph County, Indiana

Chemical Name:	Arsenic	Chromium	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Zinc	
Residential RML, HQ=3:	3.9E+01	3.5E+05	9.4E+03	1.6E+05	4.0E+02	5.5E+03	3.0E+01	4.6E+03	1.2E+03	7.0E+04	
Units:	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
Location	Location ID										
Southwest Playground (Continued)	BL-SO76	<LOD +/- 13	<LOD +/- 96	38 +/- 11	14624 +/- 275	14 +/- 4	453 +/- 49	<LOD +/- 14	<LOD +/- 42	<LOD +/- 5	53 +/- 7
		<LOD +/- 12	<LOD +/- 108	<LOD +/- 27	13547 +/- 245	24 +/- 5	394 +/- 45	<LOD +/- 13	<LOD +/- 40	<LOD +/- 5	59 +/- 7
		<LOD +/- 13	<LOD +/- 120	<LOD +/- 28	17200 +/- 304	25 +/- 5	434 +/- 49	<LOD +/- 11	<LOD +/- 41	<LOD +/- 5	66 +/- 7
	BL-SO77	<LOD +/- 14	<LOD +/- 104	<LOD +/- 27	14911 +/- 276	34 +/- 5	314 +/- 44	<LOD +/- 12	<LOD +/- 42	<LOD +/- 5	72 +/- 8
		<LOD +/- 12	<LOD +/- 105	<LOD +/- 28	15250 +/- 267	28 +/- 5	440 +/- 47	<LOD +/- 12	<LOD +/- 39	<LOD +/- 5	70 +/- 7
		19 +/- 5	<LOD +/- 100	<LOD +/- 30	15221 +/- 284	30 +/- 5	275 +/- 43	<LOD +/- 13	<LOD +/- 41	<LOD +/- 5	80 +/- 8
	BL-SO78	<LOD +/- 7	<LOD +/- 56	<LOD +/- 20	140 +/- 20	<LOD +/- 9	<LOD +/- 53	<LOD +/- 8	<LOD +/- 23	<LOD +/- 4	12 +/- 4
		<LOD +/- 6	<LOD +/- 41	<LOD +/- 16	157 +/- 17	<LOD +/- 8	48 +/- 15	<LOD +/- 7	<LOD +/- 17	<LOD +/- 3	<LOD +/- 9
		<LOD +/- 7	<LOD +/- 49	<LOD +/- 18	93 +/- 17	10 +/- 3	<LOD +/- 48	<LOD +/- 7	<LOD +/- 19	<LOD +/- 3	<LOD +/- 9
	BL-SO79	<LOD +/- 13	<LOD +/- 121	<LOD +/- 27	11443 +/- 245	<LOD +/- 13	342 +/- 48	<LOD +/- 14	<LOD +/- 45	<LOD +/- 5	41 +/- 7
		<LOD +/- 15	<LOD +/- 119	<LOD +/- 32	15856 +/- 302	31 +/- 5	434 +/- 51	<LOD +/- 14	<LOD +/- 47	<LOD +/- 5	83 +/- 8
		<LOD +/- 12	<LOD +/- 99	<LOD +/- 27	11143 +/- 219	<LOD +/- 12	317 +/- 42	<LOD +/- 12	<LOD +/- 37	<LOD +/- 5	67 +/- 7
	BL-SO80	<LOD +/- 14	<LOD +/- 106	<LOD +/- 29	16067 +/- 304	25 +/- 5	376 +/- 49	<LOD +/- 14	<LOD +/- 42	<LOD +/- 5	78 +/- 8
		<LOD +/- 14	<LOD +/- 108	<LOD +/- 26	15734 +/- 284	33 +/- 5	443 +/- 49	<LOD +/- 12	<LOD +/- 43	<LOD +/- 5	103 +/- 9
		<LOD +/- 14	<LOD +/- 108	<LOD +/- 31	21876 +/- 389	33 +/- 5	377 +/- 51	<LOD +/- 14	<LOD +/- 51	<LOD +/- 5	82 +/- 8
	BL-SO81	40 +/- 6	137 +/- 43	46 +/- 11	15911 +/- 299	25 +/- 5	404 +/- 50	<LOD +/- 12	<LOD +/- 45	<LOD +/- 5	89 +/- 9
		46 +/- 6	<LOD +/- 122	56 +/- 12	17394 +/- 333	23 +/- 5	408 +/- 52	<LOD +/- 14	<LOD +/- 45	<LOD +/- 5	101 +/- 9
		16 +/- 5	<LOD +/- 122	<LOD +/- 32	15294 +/- 295	29 +/- 5	498 +/- 54	<LOD +/- 13	<LOD +/- 42	<LOD +/- 5	75 +/- 8
	BL-SO81D	<LOD +/- 14	<LOD +/- 95	43 +/- 11	14616 +/- 272	27 +/- 5	392 +/- 47	<LOD +/- 14	<LOD +/- 42	<LOD +/- 5	85 +/- 8
		17 +/- 5	<LOD +/- 95	34 +/- 10	14900 +/- 274	40 +/- 5	550 +/- 52	<LOD +/- 12	<LOD +/- 42	<LOD +/- 5	109 +/- 9
		<LOD +/- 15	<LOD +/- 109	<LOD +/- 31	14425 +/- 279	34 +/- 5	431 +/- 50	<LOD +/- 13	<LOD +/- 41	<LOD +/- 4	102 +/- 9
	BL-SO82	<LOD +/- 12	<LOD +/- 91	<LOD +/- 27	10739 +/- 201	30 +/- 5	319 +/- 40	<LOD +/- 13	<LOD +/- 36	<LOD +/- 4	53 +/- 6
		<LOD +/- 8	<LOD +/- 69	<LOD +/- 22	4173 +/- 98	<LOD +/- 10	132 +/- 26	<LOD +/- 8	<LOD +/- 27	<LOD +/- 4	24 +/- 4
		40 +/- 5	<LOD +/- 108	<LOD +/- 28	9900 +/- 198	15 +/- 4	287 +/- 40	<LOD +/- 13	<LOD +/- 37	<LOD +/- 5	73 +/- 7
Parking Lot Playground	BL-SO70	<LOD +/- 7	<LOD +/- 46	<LOD +/- 17	1346 +/- 45	<LOD +/- 8	68 +/- 18	<LOD +/- 7	<LOD +/- 19	<LOD +/- 3	15 +/- 3
		<LOD +/- 7	<LOD +/- 54	<LOD +/- 17	1193 +/- 42	<LOD +/- 8	79 +/- 18	<LOD +/- 7	<LOD +/- 20	<LOD +/- 3	20 +/- 4
		<LOD +/- 7	<LOD +/- 45	<LOD +/- 18	2249 +/- 62	9 +/- 3	88 +/- 20	<LOD +/- 8	<LOD +/- 23	<LOD +/- 3	24 +/- 4
	BL-SO70D	<LOD +/- 7	<LOD +/- 52	<LOD +/- 17	1054 +/- 38	8 +/- 3	64 +/- 17	<LOD +/- 6	<LOD +/- 19	<LOD +/- 3	18 +/- 3
		<LOD +/- 6	<LOD +/- 43	<LOD +/- 16	597 +/- 30	<LOD +/- 8	<LOD +/- 47	<LOD +/- 8	<LOD +/- 19	<LOD +/- 3	<LOD +/- 9
		<LOD +/- 6	<LOD +/- 50	<LOD +/- 17	452 +/- 26	10 +/- 3	88 +/- 17	<LOD +/- 7	<LOD +/- 19	<LOD +/- 3	<LOD +/- 9
	BL-SO71	<LOD +/- 7	<LOD +/- 53	<LOD +/- 18	1230 +/- 43	10 +/- 3	59 +/- 18	<LOD +/- 8	<LOD +/- 18	<LOD +/- 3	30 +/- 4
		<LOD +/- 7	<LOD +/- 46	<LOD +/- 16	581 +/- 30	12 +/- 3	<LOD +/- 47	<LOD +/- 7	<LOD +/- 19	<LOD +/- 3	<LOD +/- 9
		<LOD +/- 8	<LOD +/- 58	<LOD +/- 20	2281 +/- 64	10 +/- 3	83 +/- 21	<LOD +/- 7	<LOD +/- 23	<LOD +/- 3	24 +/- 4
	BL-SO72	<LOD +/- 7	<LOD +/- 59	<LOD +/- 18	1922 +/- 56	10 +/- 3	91 +/- 20	<LOD +/- 8	<LOD +/- 21	<LOD +/- 3	21 +/- 4
		<LOD +/- 8	<LOD +/- 62	<LOD +/- 20	3078 +/- 81	<LOD +/- 10	102 +/- 23	<LOD +/- 9	<LOD +/- 24	<LOD +/- 4	35 +/- 5
		<LOD +/- 7	<LOD +/- 54	<LOD +/- 16	1661 +/- 49	12 +/- 3	63 +/- 18	<LOD +/- 7	<LOD +/- 20	<LOD +/- 3	23 +/- 4

Table 1
Soil Sampling X-Ray Fluorescence Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name:		Arsenic	Chromium	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Zinc
Residential RML, HQ=3:		3.9E+01	3.5E+05	9.4E+03	1.6E+05	4.0E+02	5.5E+03	3.0E+01	4.6E+03	1.2E+03	7.0E+04
Units:		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Location	Location ID										
Parking Lot Playground (Continued)	BL-SO73	<LOD +/- 7	<LOD +/- 48	<LOD +/- 18	1532 +/- 46	<LOD +/- 8	<LOD +/- 46	<LOD +/- 7	<LOD +/- 18	<LOD +/- 3	14 +/- 3
		<LOD +/- 7	<LOD +/- 51	<LOD +/- 17	1729 +/- 50	<LOD +/- 8	51 +/- 17	<LOD +/- 7	<LOD +/- 20	<LOD +/- 3	19 +/- 4
		<LOD +/- 7	<LOD +/- 51	<LOD +/- 18	1842 +/- 51	12 +/- 3	71 +/- 18	<LOD +/- 8	<LOD +/- 20	<LOD +/- 3	19 +/- 4
	BL-SO74	<LOD +/- 7	<LOD +/- 48	<LOD +/- 17	1691 +/- 50	<LOD +/- 8	<LOD +/- 51	<LOD +/- 7	<LOD +/- 20	<LOD +/- 3	25 +/- 4
		<LOD +/- 6	<LOD +/- 39	<LOD +/- 16	1268 +/- 40	9 +/- 3	<LOD +/- 44	<LOD +/- 7	<LOD +/- 19	<LOD +/- 2	17 +/- 3
		<LOD +/- 7	<LOD +/- 54	<LOD +/- 18	1145 +/- 41	<LOD +/- 8	<LOD +/- 46	<LOD +/- 8	<LOD +/- 20	<LOD +/- 3	16 +/- 3
	BL-SO75	<LOD +/- 7	<LOD +/- 52	<LOD +/- 18	1165 +/- 41	<LOD +/- 8	<LOD +/- 49	<LOD +/- 6	<LOD +/- 19	<LOD +/- 3	12 +/- 3
		<LOD +/- 6	<LOD +/- 50	<LOD +/- 16	1277 +/- 42	<LOD +/- 7	55 +/- 16	<LOD +/- 7	<LOD +/- 19	<LOD +/- 3	11 +/- 3
		<LOD +/- 8	<LOD +/- 54	<LOD +/- 18	2112 +/- 57	10 +/- 3	<LOD +/- 51	<LOD +/- 9	<LOD +/- 22	<LOD +/- 3	23 +/- 4
Beck's Lake	BL-SO91	<LOD +/- 17	<LOD +/- 88	<LOD +/- 29	14751 +/- 277	69 +/- 6	386 +/- 47	<LOD +/- 11	<LOD +/- 39	<LOD +/- 4	110 +/- 9
		<LOD +/- 16	<LOD +/- 113	<LOD +/- 27	12889 +/- 247	45 +/- 6	339 +/- 45	<LOD +/- 13	<LOD +/- 40	<LOD +/- 6	80 +/- 8
		<LOD +/- 15	<LOD +/- 103	<LOD +/- 28	12192 +/- 230	48 +/- 5	331 +/- 43	<LOD +/- 14	<LOD +/- 38	<LOD +/- 5	75 +/- 8
	BL-SO92	<LOD +/- 15	<LOD +/- 90	<LOD +/- 26	11567 +/- 219	45 +/- 5	334 +/- 42	<LOD +/- 13	<LOD +/- 38	<LOD +/- 5	88 +/- 8
		<LOD +/- 16	<LOD +/- 101	<LOD +/- 28	14099 +/- 254	61 +/- 6	307 +/- 42	<LOD +/- 12	<LOD +/- 39	<LOD +/- 5	92 +/- 8
		<LOD +/- 15	<LOD +/- 93	31 +/- 10	13484 +/- 246	51 +/- 6	331 +/- 42	<LOD +/- 12	<LOD +/- 38	<LOD +/- 5	81 +/- 8
Southeast Playground	BL-SO83	<LOD +/- 12	<LOD +/- 108	<LOD +/- 32	17804 +/- 341	<LOD +/- 13	473 +/- 55	<LOD +/- 15	<LOD +/- 42	<LOD +/- 5	121 +/- 10
		<LOD +/- 12	<LOD +/- 102	<LOD +/- 28	14365 +/- 268	<LOD +/- 13	552 +/- 52	<LOD +/- 13	<LOD +/- 44	<LOD +/- 5	136 +/- 10
		<LOD +/- 12	<LOD +/- 100	31 +/- 10	14401 +/- 266	17 +/- 4	388 +/- 46	<LOD +/- 13	<LOD +/- 43	<LOD +/- 5	143 +/- 10
	BL-SO84	<LOD +/- 12	<LOD +/- 107	<LOD +/- 26	12691 +/- 247	<LOD +/- 13	450 +/- 49	<LOD +/- 13	<LOD +/- 43	<LOD +/- 4	54 +/- 7
		<LOD +/- 12	<LOD +/- 108	<LOD +/- 26	12524 +/- 245	16 +/- 4	416 +/- 48	<LOD +/- 13	<LOD +/- 42	<LOD +/- 4	79 +/- 8
	BL-SO85	12 +/- 4	<LOD +/- 93	<LOD +/- 28	11711 +/- 225	<LOD +/- 12	347 +/- 43	<LOD +/- 11	<LOD +/- 37	<LOD +/- 4	54 +/- 7
		<LOD +/- 14	<LOD +/- 120	<LOD +/- 29	15749 +/- 313	20 +/- 5	491 +/- 55	<LOD +/- 13	<LOD +/- 43	<LOD +/- 5	72 +/- 8
		<LOD +/- 12	<LOD +/- 115	34 +/- 10	13066 +/- 249	15 +/- 4	641 +/- 55	<LOD +/- 13	<LOD +/- 37	<LOD +/- 5	70 +/- 8
	BL-SO86	<LOD +/- 12	<LOD +/- 99	<LOD +/- 29	14458 +/- 267	18 +/- 4	412 +/- 47	<LOD +/- 12	<LOD +/- 37	<LOD +/- 4	75 +/- 8
		<LOD +/- 11	<LOD +/- 93	<LOD +/- 26	11378 +/- 212	16 +/- 4	406 +/- 44	<LOD +/- 12	<LOD +/- 39	<LOD +/- 5	50 +/- 6
		<LOD +/- 11	<LOD +/- 92	<LOD +/- 27	10559 +/- 211	<LOD +/- 12	363 +/- 44	<LOD +/- 13	<LOD +/- 39	<LOD +/- 5	46 +/- 6
Northwest Playground	BL-SO87	<LOD +/- 12	<LOD +/- 102	<LOD +/- 29	13728 +/- 255	18 +/- 4	437 +/- 47	<LOD +/- 12	<LOD +/- 43	<LOD +/- 5	56 +/- 7
		16 +/- 4	<LOD +/- 111	<LOD +/- 29	15066 +/- 282	16 +/- 4	440 +/- 50	<LOD +/- 12	<LOD +/- 45	<LOD +/- 5	88 +/- 8
		<LOD +/- 13	<LOD +/- 105	<LOD +/- 30	14629 +/- 281	17 +/- 5	392 +/- 48	<LOD +/- 13	<LOD +/- 44	<LOD +/- 5	58 +/- 7
	BL-SO88	<LOD +/- 14	<LOD +/- 113	<LOD +/- 29	14272 +/- 290	18 +/- 5	360 +/- 50	<LOD +/- 13	<LOD +/- 42	<LOD +/- 5	87 +/- 9
		<LOD +/- 14	<LOD +/- 130	<LOD +/- 32	24176 +/- 449	18 +/- 5	466 +/- 58	<LOD +/- 15	<LOD +/- 53	<LOD +/- 5	104 +/- 10
		<LOD +/- 17	<LOD +/- 132	<LOD +/- 37	18972 +/- 400	27 +/- 6	539 +/- 64	<LOD +/- 14	<LOD +/- 55	<LOD +/- 6	142 +/- 12
	BL-SO89	<LOD +/- 13	<LOD +/- 108	<LOD +/- 32	11795 +/- 245	17 +/- 5	300 +/- 45	<LOD +/- 13	<LOD +/- 44	<LOD +/- 5	88 +/- 9
		<LOD +/- 18	<LOD +/- 103	56 +/- 11	16483 +/- 289	85 +/- 7	276 +/- 42	<LOD +/- 14	<LOD +/- 40	<LOD +/- 4	133 +/- 10
		<LOD +/- 18	<LOD +/- 111	61 +/- 11	16269 +/- 290	81 +/- 7	247 +/- 42	<LOD +/- 13	<LOD +/- 44	<LOD +/- 5	124 +/- 9
		<LOD +/- 19	<LOD +/- 116	83 +/- 12	18321 +/- 319	87 +/- 7	317 +/- 45	<LOD +/- 16	<LOD +/- 45	<LOD +/- 5	140 +/- 10

Table 1
Soil Sampling X-Ray Fluorescence Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name:		Arsenic	Chromium	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Zinc
Residential RML, HQ=3:		3.9E+01	3.5E+05	9.4E+03	1.6E+05	4.0E+02	5.5E+03	3.0E+01	4.6E+03	1.2E+03	7.0E+04
Units:		(mg/kg)									
Location	Location ID										
Northwest Playground	BL-SO90	<LOD +/- 15	<LOD +/- 107	32 +/- 10	19265 +/- 328	54 +/- 6	396 +/- 47	<LOD +/- 13	<LOD +/- 43	<LOD +/- 4	132 +/- 10
		23 +/- 6	<LOD +/- 113	56 +/- 11	15927 +/- 282	54 +/- 6	266 +/- 42	<LOD +/- 12	<LOD +/- 41	<LOD +/- 5	123 +/- 9
		17 +/- 5	<LOD +/- 100	31 +/- 10	16773 +/- 285	52 +/- 5	316 +/- 42	<LOD +/- 12	<LOD +/- 41	<LOD +/- 4	124 +/- 9

Notes:

Shaded values indicate concentration exceeds EPA RML.

<LOD = Less than the level of detection

HQ = Hazard Quotient

mg/kg = milligram per kilogram

RML = Removal Management Level

Table 2
Soil Sampling Analytical Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name	Residential RML (HQ=3)	Location	Soccer Field A									
			BL-SO01	BL-SO02	BL-SO03	BL-SO04	BL-SO05	BL-SO06	BL-SO07	BL-SO08	BL-SO35	
		Field Sample ID	BLSO01(0-3)-061113	BLSO02(0-3)-061113	BLSO03(0-3)-061113	BLSO04(0-3)-061113	BLSO05(0-3)-061113	BLSO06(0-3)-061113	BLSO07(0-3)-061113	BLSO08(0-3)-061113	BLSO35(0-3)-061213	
		Sample Date	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/12/2013	
pH	NA	S.U.	--	--	--	--	--	--	--	--	7.5	
Redox Potential	NA	mV	--	--	--	--	--	--	--	--	505	
Chromium, Hexavalent	2.9E+01	mg/kg	--	--	--	--	--	--	--	--	1.5 J	
Aluminum	2.3E+05	mg/kg	3450	3840	2690	4280	6180	3760	5720	4820	--	
Antimony	9.4E+01	mg/kg	1.7 J	0.84 UJ	0.79 UJ	0.78 UJ	0.85 UJ	0.68 UJ	0.82 UJ	0.76 UJ	--	
Arsenic	3.9E+01	mg/kg	8.1	9.8	9.6	14.9	11.9	13	6	8.2	--	
Barium	4.6E+04	mg/kg	107	71.8	65.3	90.6	129	118	80.2	74.6	--	
Beryllium	4.7E+02	mg/kg	0.36	0.34 U	0.32 U	0.32	0.46	0.3	0.37	0.31 U	--	
Cadmium	2.1E+02	mg/kg	1.5	0.84	0.67	1.1	0.99	1.5	0.5	0.67	--	
Calcium	NA	mg/kg	22000	25900	38000	31200	20800	70300	13000	10900	--	
Chromium	3.5E+05	mg/kg	23.7	8.6	7.2	12.7	13.1	15.7	11.4	10.7	--	
Cobalt	7.0E+01	mg/kg	4.2 U	4.2 U	4 U	3.9 U	4.7	4.1	4.1 U	3.8 U	--	
Copper	9.4E+03	mg/kg	76.5	26.5	22.7	28.5	33.3	47.2	22.2	23	--	
Iron	1.6E+05	mg/kg	12900	10400	8420	12400	12700	11900	11100	8320	--	
Lead	4.0E+02	mg/kg	163	56.5	58.5	77.6	85.7	123	45.2	74.7	--	
Magnesium	NA	mg/kg	6320	4730	6160	2810	4300	3370	2430	3460	--	
Manganese	5.5E+03	mg/kg	246	223	223	206	426	379	326	320	--	
Mercury	3.0E+01	mg/kg	0.33	0.1	0.074	0.13	0.12	0.14	0.059	0.14	--	
Nickel	4.6E+03	mg/kg	14.7	8.7	7	9.6	10.3	10.2	9	8.7	--	
Potassium	NA	mg/kg	530	630	480	609	751	511	680	702	--	
Selenium	1.2E+03	mg/kg	0.83 U	0.85	0.79 U	1.2	0.85 U	0.74	0.82 U	0.76 U	--	
Silver	1.2E+03	mg/kg	0.59	0.42 U	0.4 U	0.39 U	0.42 U	0.34 U	0.41 U	0.38 U	--	
Sodium	NA	mg/kg	420 U	420 U	400 U	390 U	420 U	340 U	410 U	380 U	--	
Thallium	2.3E+00	mg/kg	0.83 U	0.84 U	0.79 U	0.78 U	0.85 U	0.68 U	0.82 U	0.76 U	--	
Vanadium	1.2E+03	mg/kg	10.8	10.7	8.7	12	16.2	10.3	15.3	12.6	--	
Zinc	7.0E+04	mg/kg	214 J	68.6 J	71.8 J	83.4 J	112 J	110 J	66.6 J	74.6 J	--	

Table 2
Soil Sampling Analytical Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name	Residential RML (HQ=3)	Location	Soccer Field B								
			BL-SO09	BL-SO10	BL-SO11	BL-SO12	BL-SO13	BL-SO14	BL-SO15	BL-SO16	BL-SO36
		Field Sample ID	BL-SO09(0-3) 061113	BL-SO10(0-3) 061113	BL-SO11(0-3) 061113	BL-SO12(0-3) 061113	BL-SO13(0-3) 061113	BL-SO14(0-3) 061113	BL-SO15(0-3) 061113	BL-SO16(0-3) 061113	BL-SO36(0-3) 061213
		Sample Date	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/12/2013
pH	NA	S.U.	--	--	--	--	--	--	--	--	7
Redox Potential	NA	mV	--	--	--	--	--	--	--	--	491
Chromium, Hexavalent	2.9E+01	mg/kg	--	--	--	--	--	--	--	--	1.6 J
Aluminum	2.3E+05	mg/kg	6370	11800	6590	7710	9290	9580	9730	8290	--
Antimony	9.4E+01	mg/kg	0.99 UJ	1 UJ	0.99 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	--
Arsenic	3.9E+01	mg/kg	6	8.5	5.5	8.2	8.6	9.6	7	7.5	--
Barium	4.6E+04	mg/kg	35.1	109	39.1	63.8	146	146	202	182	--
Beryllium	4.7E+02	mg/kg	0.4 U	0.54	0.4 U	0.4	0.5	0.59	0.5	0.45	--
Cadmium	2.1E+02	mg/kg	0.41	0.71	0.4	0.67	0.91	2.5	2.1	1.5	--
Calcium	NA	mg/kg	15900 J	10900 J	16400 J	20500 J	14500 J	20800 J	21700 J	38300 J	--
Chromium	3.5E+05	mg/kg	12.5	15.9	11.9	13.3	16.8	19.6	20.3	17.1	--
Cobalt	7.0E+01	mg/kg	5.2	6	5.1	5.7	6.4	6.4	6.2	5.5	--
Copper	9.4E+03	mg/kg	17.1	24.2	18.2	21.2	34.7	46.4	44.8	43.4	--
Iron	1.6E+05	mg/kg	10900 J	14200 J	10900 J	12200 J	14300 J	15400 J	14500 J	13600 J	--
Lead	4.0E+02	mg/kg	26.2	54	32	41.6	72.6	104	161	116	--
Magnesium	NA	mg/kg	9950	5030	10600	9950	3650	3490	2270	2260	--
Manganese	5.5E+03	mg/kg	366	605	352	454	808	761	898	875	--
Mercury	3.0E+01	mg/kg	0.055	0.1	0.072	0.1	0.12	0.13	0.14	0.22	--
Nickel	4.6E+03	mg/kg	12.6	14.7	12.5	13.8	15.7	17.2	17.4	25.8	--
Potassium	NA	mg/kg	1280 J	1220 J	1280 J	1220 J	1260 J	1170 J	1280 J	1120 J	--
Selenium	1.2E+03	mg/kg	0.99 U	1 U	0.99 U	1 U	1 U	1 U	1 U	1 U	--
Silver	1.2E+03	mg/kg	0.5 U	0.51 U	--						
Sodium	NA	mg/kg	500 U	510 U	--						
Thallium	2.3E+00	mg/kg	0.99 U	1 U	0.99 U	1 U	1 U	1 U	1 U	1 U	--
Vanadium	1.2E+03	mg/kg	16	23.1	15.2	16.3	19.1	20.6	20.2	17.4	--
Zinc	7.0E+04	mg/kg	54.9 J	93.1 J	68.6 J	71.8 J	115 J	133 J	181 J	145 J	--

Table 2
Soil Sampling Analytical Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name	Residential RML (HQ=3)	Location	Soccer Field C										
			BL-SO17	BL-SO17	BL-SO18	BL-SO19	BL-SO20	BL-SO21	BL-SO22	BL-SO23	BL-SO24	BL-SO25	
		Location ID	Field Sample ID	BL-SO17(0-3) 061213	BL-SO17(0-3) 061213D	BL-SO18(0-3) 061213	BL-SO19(0-3) 061213	BL-SO20(0-3) 061213	BL-SO21(0-3) 061213	BL-SO22(0-3) 061213	BL-SO23(0-3) 061213	BL-SO24(0-3) 061213	BL-SO25(0-3) 061213
		Sample Date	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	
pH	NA	S.U.	--	--	--	--	--	--	--	--	--	6.4	
Redox Potential	NA	mV	--	--	--	--	--	--	--	--	--	499	
Chromium, Hexavalent	2.9E+01	mg/kg	--	--	--	--	--	--	--	--	--	0.44 UJ	
Aluminum	2.3E+05	mg/kg	6020	5460	6280	6330	6780	8100	6420	6940	5910	--	
Antimony	9.4E+01	mg/kg	0.99 UJ	1 UJ	0.99 UJ	0.99 UJ	1 UJ	1 UJ	0.99 UJ	0.99 UJ	1 UJ	--	
Arsenic	3.9E+01	mg/kg	4.1	3.8	4.3	5.6	5.1	5.3	4.5	3.8	4.3	--	
Barium	4.6E+04	mg/kg	73.9	69.7	89.8	93	117	142	99.1	87.5	80.1	--	
Beryllium	4.7E+02	mg/kg	0.39 U	0.4 U	0.39 U	0.39 U	0.44	0.43	0.4 U	0.4 U	0.41 U	--	
Cadmium	2.1E+02	mg/kg	0.41	0.42	0.42	0.78	0.98	1	0.73	0.63	0.42	--	
Calcium	NA	mg/kg	2000 J	1910 J	2540 J	2260 J	3020 J	2960 J	3590 J	2630 J	3080 J	--	
Chromium	3.5E+05	mg/kg	13.9	13.1	12.4	24.6	20.5	18.3	16.7	21.9	11.1	--	
Cobalt	7.0E+01	mg/kg	4.9 U	5 U	4.9 U	5.1	5.6	5.8	5 U	5.1	5.1 U	--	
Copper	9.4E+03	mg/kg	23.6	23.2	24.4	57.4	62.2	38.4	41.8	34.9	18.1	--	
Iron	1.6E+05	mg/kg	9890	10600	11300	13800	12900	14100	11000	11700	10700	--	
Lead	4.0E+02	mg/kg	54.6 J	56.2 J	46.5 J	77.2 J	92.2 J	107 J	76 J	117 J	61.7 J	--	
Magnesium	NA	mg/kg	1240	1140	1330	1300	1470	1710	1630	2390	1650	--	
Manganese	5.5E+03	mg/kg	325	303	380	367	414	416	336	269	309	--	
Mercury	3.0E+01	mg/kg	0.064	0.047	0.061	0.082	0.091	0.091	0.12	0.22	0.06	--	
Nickel	4.6E+03	mg/kg	11.2	11.1	10.9	27.3	21	14.4	15.2	15.2	9.1	--	
Potassium	NA	mg/kg	792 J	732 J	861 J	803 J	938 J	989 J	842 J	911 J	840 J	--	
Selenium	1.2E+03	mg/kg	0.99 U	1 U	0.99 U	0.99 U	1 U	1 U	0.99 U	0.99 U	1 U	--	
Silver	1.2E+03	mg/kg	0.49 U	0.5 U	0.49 U	0.49 U	0.5 U	0.5 U	0.5 U	0.5 U	0.51 U	--	
Sodium	NA	mg/kg	490 U	500 U	490 U	490 U	500 U	500 U	500 U	500 U	510 U	--	
Thallium	2.3E+00	mg/kg	0.99 U	1 U	0.99 U	0.99 U	1 U	1 U	0.99 U	0.99 U	1 U	--	
Vanadium	1.2E+03	mg/kg	15.9	14.9	17.1	17.2	19.7	20.1	17.3	17.7	16.3	--	
Zinc	7.0E+04	mg/kg	67 J	66.8 J	77.1 J	135 J	141 J	217 J	118 J	143 J	88.3 J	--	

Table 2
Soil Sampling Analytical Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name	Residential RML (HQ=3)	Location	Soccer Field D									
			BL-SO26	BL-SO26	BL-SO27	BL-SO28	BL-SO29	BL-SO30	BL-SO31	BL-SO32	BL-SO33	BL-SO34
		Field Sample ID	BL-SO26(0-3) 061213	BL-SO26(0-3) 061213D	BL-SO27(0-3) 061213	BL-SO28(0-3) 061213	BL-SO29(0-3) 061213	BL-SO30(0-3) 061213	BL-SO31(0-3) 061213	BL-SO32(0-3) 061213	BL-SO33(0-3) 061213	BL-SO34(0-3) 061213
		Sample Date	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013
pH	NA	S.U.	--	--	--	--	--	--	--	--	--	7.2
Redox Potential	NA	mV	--	--	--	--	--	--	--	--	--	464
Chromium, Hexavalent	2.9E+01	mg/kg	--	--	--	--	--	--	--	--	--	0.47 J
Aluminum	2.3E+05	mg/kg	4050	4040	6030	5050	7100	5960	7620	4780	6290	--
Antimony	9.4E+01	mg/kg	1.2 J	1 UJ	1 UJ	1.2 J	0.98 UJ	1 UJ	0.99 UJ	1 UJ	1 UJ	--
Arsenic	3.9E+01	mg/kg	7.7	7.5	5.7	7.1	5.9	6.4	6.3	8.5	6.3	--
Barium	4.6E+04	mg/kg	72.9	71.2	74.5	64.6	86.9	82.1	96.2	77.7	79.5	--
Beryllium	4.7E+02	mg/kg	0.4 U	0.4 U	0.4 U	0.4 U	0.39 U	0.4 U	0.39	0.41 U	0.4 U	--
Cadmium	2.1E+02	mg/kg	1.1	1.1	0.49	0.7	0.44	0.63	0.42	0.59	0.4 U	--
Calcium	NA	mg/kg	5040 J	4800 J	6300 J	5640 J	4170 J	6320 J	5570 J	19400 J	10300 J	--
Chromium	3.5E+05	mg/kg	15.3	14.7	11.1	14.3	12.2	12.8	12.2	10.9	10.4	--
Cobalt	7.0E+01	mg/kg	5 U	5 U	5 U	5 U	5	5 U	5.2	5.1 U	5 U	--
Copper	9.4E+03	mg/kg	30.3	29.6	16	23.2	14.8	22.2	14.3	19.1	12.7	--
Iron	1.6E+05	mg/kg	12500	12300	10400	10800	10200	10500	10600	11700	9770	--
Lead	4.0E+02	mg/kg	151 J	144 J	46.6 J	78.2 J	31.4 J	56.6 J	24.2 J	45.8 J	25.3 J	--
Magnesium	NA	mg/kg	1360	1310	1640	1770	1820	1780	1920	2290	1940	--
Manganese	5.5E+03	mg/kg	199	193	388	280	487	354	552	382	428	--
Mercury	3.0E+01	mg/kg	0.096	0.12	0.089	0.084	0.057	0.11	0.061	0.065	0.044	--
Nickel	4.6E+03	mg/kg	8.6	8.2	8.5	8.8	9.7	9.4	10.3	7.7	8.9	--
Potassium	NA	mg/kg	754 J	744 J	1000 J	885 J	1230 J	960 J	1080 J	823 J	962 J	--
Selenium	1.2E+03	mg/kg	1 U	1 U	1 U	0.99 U	0.98 U	1 U	0.99 U	1 U	1 U	--
Silver	1.2E+03	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.49 U	0.5 U	0.49 U	0.51 U	0.5 U	--
Sodium	NA	mg/kg	500 U	500 U	500 U	500 U	490 U	500 U	490 U	510 U	500 U	--
Thallium	2.3E+00	mg/kg	1 U	1 U	1 U	0.99 U	0.98 U	1 U	0.99 U	1 U	1 U	--
Vanadium	1.2E+03	mg/kg	13	13.4	15.6	14.6	18.2	16	19.2	12.6	16.4	--
Zinc	7.0E+04	mg/kg	144 J	144 J	65.8 J	93.8 J	63 J	85.3 J	58.4 J	66.5 J	52.8 J	--

Table 2
Soil Sampling Analytical Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name	Residential RML (HQ=3)	Location	Baseball Diamond					Southwest Playground		
			BL-SO37	BL-SO38	BL-SO39	BL-SO40	BL-SO40	BL-SO41	BL-SO42	BL-SO43
		Field Sample ID	BL-SO37(0-3) 061213	BL-SO38(0-3) 061213	BL-SO39(0-3) 061213	BL-SO40(0-3) 061213	BL-SO40(0-3) 061213D	BL-SO41(0-3) 061213	BL-SO42(0-3) 061213	BL-SO43(0-3) 061213
		Sample Date	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013	6/12/2013
pH	NA	S.U.	--	--	--	8	8.1	--	--	--
Redox Potential	NA	mV	--	--	--	502	463	--	--	--
Chromium, Hexavalent	2.9E+01	mg/kg	--	--	--	0.43 UJ	0.42 UJ	--	--	--
Aluminum	2.3E+05	mg/kg	5480	5860	6070	--	--	5990	4280	4380
Antimony	9.4E+01	mg/kg	1 UJ	1 UJ	1 UJ	--	--	1.1 J	1 UJ	1 UJ
Arsenic	3.9E+01	mg/kg	4.2	4.3	4.6	--	--	5	4.3	5.9
Barium	4.6E+04	mg/kg	24.3	22.3	23.8	--	--	139	64.1	57.7
Beryllium	4.7E+02	mg/kg	0.4 U	0.41 U	0.4 U	--	--	0.4 U	0.41 U	0.4 U
Cadmium	2.1E+02	mg/kg	0.4 U	0.41 U	0.4 U	--	--	1.9	0.76	0.62
Calcium	NA	mg/kg	37900 J	34800 J	33200 J	--	--	6180 J	6570 J	9590 J
Chromium	3.5E+05	mg/kg	10.1 J	10 J	10.6 J	--	--	20 J	10.7 J	10.3 J
Cobalt	7.0E+01	mg/kg	5 U	5.1 U	5 U	--	--	5 U	5.1 U	5 U
Copper	9.4E+03	mg/kg	9.8	9.3	10.2	--	--	52.5	24.9	21.2
Iron	1.6E+05	mg/kg	12000	11900 J	12100	--	--	13000	9890	11200
Lead	4.0E+02	mg/kg	13.5 J	9.1	13.1 J	--	--	181 J	59.8 J	96.3 J
Magnesium	NA	mg/kg	19400 J	17500 J	16800 J	--	--	2070 J	2880 J	4750 J
Manganese	5.5E+03	mg/kg	297	302	302	--	--	298	259	216
Mercury	3.0E+01	mg/kg	0.032 U	0.032 U	0.034 U	--	--	0.12	0.057	0.068
Nickel	4.6E+03	mg/kg	11.4	11.8	11.2	--	--	12.7	8.8	8.7
Potassium	NA	mg/kg	980 J	1040 J	1040 J	--	--	714 J	513 J	566 J
Selenium	1.2E+03	mg/kg	1 U	1 U	1 U	--	--	1 U	1 U	1 U
Silver	1.2E+03	mg/kg	0.5 U	0.51 U	0.5 U	--	--	0.5 U	0.51 U	0.5 U
Sodium	NA	mg/kg	500 U	510 U	500 U	--	--	500 U	510 U	500 U
Thallium	2.3E+00	mg/kg	1 U	1 U	1 U	--	--	1 U	1 U	1 U
Vanadium	1.2E+03	mg/kg	12.8	12.7	13.6	--	--	15.9	12.4	12.1
Zinc	7.0E+04	mg/kg	35 J	31.2 J	34.7 J	--	--	191 J	80.8 J	78.5 J

Table 2
Soil Sampling Analytical Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name	Residential RML (HQ=3)	Location	Southwest Playground (Continued)								
			BL-SO44	BL-SO76	BL-SO77	BL-SO78	BL-SO79	BL-SO80	BL-SO81	BL-SO81	BL-SO82
		Location ID	Field Sample ID	BL-SO44(0-3) 061213	BL-SO76(0-3) 061113	BL-SO77(0-3) 061113	BL-SO78(0-3) 061113	BL-SO79(0-3) 061113	BL-SO80(0-3) 061113	BL-SO81(0-3) 061113	BLSO82(0-3) 061113
		Sample Date	6/12/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013
pH	NA	S.U.	--	--	--	--	--	--	--	--	7.9
Redox Potential	NA	mV	--	--	--	--	--	--	--	--	515
Chromium, Hexavalent	2.9E+01	mg/kg	--	--	--	--	--	--	--	--	0.43 UJ
Aluminum	2.3E+05	mg/kg	4920	4810	4130	292	2730	2550	3570	3790	--
Antimony	9.4E+01	mg/kg	0.99 UJ	0.97 UJ	1 UJ	1 UJ	0.94 UJ	0.98 UJ	1 UJ	1 UJ	--
Arsenic	3.9E+01	mg/kg	4.6	5.1	5.6	1 U	3.6	3.2	29.6	13.8	--
Barium	4.6E+04	mg/kg	66.6	28.3	27.1	26.9	19.3	18.9	32.9	33.1	--
Beryllium	4.7E+02	mg/kg	0.4 U	0.39 U	0.4 U	0.41 U	0.37 U	0.39 U	0.41 U	0.41 U	--
Cadmium	2.1E+02	mg/kg	0.48	0.39 U	0.4 U	0.41 U	0.37 U	0.39 U	3.5	2.3	--
Calcium	NA	mg/kg	2930 J	12000 J	27600 J	2440 J	126000 J	68500 J	31900 J	34000 J	--
Chromium	3.5E+05	mg/kg	10.6 J	8.6 J	11.2 J	1.2 J	5.9 J	5.6 J	34.9 J	17.4 J	--
Cobalt	7.0E+01	mg/kg	5 U	4.8 U	5 U	5.1 U	4.7 U	4.9 U	5.1 U	5.1 U	--
Copper	9.4E+03	mg/kg	20.8	9.2	9.8	3	6.2	6.7	30.1	26.1	--
Iron	1.6E+05	mg/kg	10200	10000	9550	664	13300	6390	14300	12200	--
Lead	4.0E+02	mg/kg	49.7 J	15.4 J	28.8 J	3.2 J	13.8 J	15.9 J	26.8 J	28.7 J	--
Magnesium	NA	mg/kg	1260 J	5360 J	6760 J	573 J	4940 J	24300 J	16800 J	17800 J	--
Manganese	5.5E+03	mg/kg	200	305	302	80.2	300	239	444	422	--
Mercury	3.0E+01	mg/kg	0.059	0.042	0.058	0.045 U	0.053	0.052	0.047	0.053	--
Nickel	4.6E+03	mg/kg	8.7	8.2	7.8	4.1 U	5.3	5.7	11.4	11	--
Potassium	NA	mg/kg	579 J	515 J	500 UJ	510 UJ	569 J	490 UJ	661 J	707 J	--
Selenium	1.2E+03	mg/kg	0.99 U	0.97 U	1 U	1 U	0.94 U	0.98 U	1 U	1 U	--
Silver	1.2E+03	mg/kg	0.5 U	0.48 U	0.5 U	0.51 U	0.47 U	0.49 U	0.51 U	0.51 U	--
Sodium	NA	mg/kg	500 U	480 U	500 U	510 U	470 U	490 U	510 U	510 U	--
Thallium	2.3E+00	mg/kg	0.99 U	0.97 U	1 U	1 U	0.94 U	0.98 U	1 U	1 U	--
Vanadium	1.2E+03	mg/kg	13.2	12	10.8	1 U	7.8	7.2	12.1	12.8	--
Zinc	7.0E+04	mg/kg	125 J	51.5 J	49.8 J	18.8 J	41.3 J	38.9 J	77.2 J	75.1 J	--

Table 2
Soil Sampling Analytical Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name	Residential RML (HQ=3)	Location	Parking Lot Playground							Beck's Lake	
			BL-SO70	BL-SO70	BL-SO71	BL-SO72	BL-SO73	BL-SO74	BL-SO75	BL-SO91	BL-SO92
		Field Sample ID	BL-SO70(0-3) ID 061113	BL-SO70(0-3) ID 061113D	BL-SO71(0-3) ID 061113	BL-SO72(0-3) ID 061113	BL-SO73(0-3) ID 061113	BL-SO74(0-3) ID 061113	BLSO75(0-3)- ID 061113	BL-SO91(0-3) ID 061113	BLSO92(0-3)- ID 061113
		Sample Date	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013
pH	NA	S.U.	--	--	--	--	--	--	6.8	--	7.9
Redox Potential	NA	mV	--	--	--	--	--	--	519	--	470
Chromium, Hexavalent	2.9E+01	mg/kg	--	--	--	--	--	--	5 J	--	0.45 UJ
Aluminum	2.3E+05	mg/kg	1080 J	629 J	1890	1330	1730	1230	--	3040	--
Antimony	9.4E+01	mg/kg	0.98 UJ	1 UJ	1 UJ	0.82 UJ	1 UJ	0.98 UJ	--	0.99 UJ	--
Arsenic	3.9E+01	mg/kg	1.4	1 U	3.9	1.6	3.8	1.2	--	8.1	--
Barium	4.6E+04	mg/kg	39.5	36.8	37	34.9	45	38.8	--	51.8	--
Beryllium	4.7E+02	mg/kg	0.39 U	0.42 U	0.42 U	0.33 U	0.4 U	0.39 U	--	0.4 U	--
Cadmium	2.1E+02	mg/kg	0.46	0.42 U	0.72	1.1	0.71	1.4	--	0.52	--
Calcium	NA	mg/kg	7260 J	6840 J	116000 J	6610 J	8510 J	6240 J	--	34400 J	--
Chromium	3.5E+05	mg/kg	2.9 J	1.8 J	4.6 J	3.7 J	6.3 J	4 J	--	6.6	--
Cobalt	7.0E+01	mg/kg	4.9 U	5.2 U	5.2 U	4.1 U	5 U	4.9 U	--	5 U	--
Copper	9.4E+03	mg/kg	8.5 J	4.9 J	14.5	7.6	17.3	9	--	14.9	--
Iron	1.6E+05	mg/kg	1980 J	1050 J	5800	2650	3040	2210	--	8640 J	--
Lead	4.0E+02	mg/kg	8.4 J	4.7 J	11.5 J	10.5 J	13.9 J	8.2 J	--	49.8	--
Magnesium	NA	mg/kg	1180 J	798 J	66200 J	1220 J	1350 J	1080 J	--	5050	--
Manganese	5.5E+03	mg/kg	159	143	200	135	196	120	--	263	--
Mercury	3.0E+01	mg/kg	0.048 U	0.057 U	0.051 U	0.045	0.059	0.061	--	0.072	--
Nickel	4.6E+03	mg/kg	3.9 U	4.2 U	6	3.3 U	4 U	3.9 U	--	7.1	--
Potassium	NA	mg/kg	490 UJ	520 UJ	621 J	410 UJ	500 UJ	490 UJ	--	500 UJ	--
Selenium	1.2E+03	mg/kg	0.98 U	1 U	1 U	0.82 U	1 U	0.98 U	--	0.99 U	--
Silver	1.2E+03	mg/kg	0.49 U	0.52 U	0.52 U	0.41 U	0.5 U	0.49 U	--	0.5 U	--
Sodium	NA	mg/kg	490 U	520 U	520 U	410 U	500 U	490 U	--	500 U	--
Thallium	2.3E+00	mg/kg	0.98 U	1 U	1 U	0.82 U	1 U	0.98 U	--	0.99 U	--
Vanadium	1.2E+03	mg/kg	2.7	1.9	5.7	3.4	4.4	3.2	--	10.6	--
Zinc	7.0E+04	mg/kg	34.3 J	18.5 J	45 J	33.8 J	38.3 J	29.9 J	--	67.2 J	--

Table 2
Soil Sampling Analytical Results
Beck's Lake Health Risk SA
South Bend, St. Joseph County, Indiana

Chemical Name	Residential RML (HQ=3)	Location	Southeast Playground				Northwest Playground			
			Location ID	BL-SO83	BL-SO84	BL-SO85	BL-SO86	BL-SO87	BL-SO88	BL-SO89
		Field Sample ID	BL-SO83(0-3)-061113	BL-SO84(0-3)-061113	BL-SO85(0-3)-061113	BL-SO86(0-3)-061113	BL-SO87(0-3)-061113	BL-SO88(0-3)-061113	BL-SO89(0-3)-061113	BL-SO90(0-3)-061113
		Sample Date	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013
pH	NA	S.U.	--	--	--	8	--	--	--	8
Redox Potential	NA	mV	--	--	--	514	--	--	--	511
Chromium, Hexavalent	2.9E+01	mg/kg	--	--	--	1.4 J	--	--	--	0.43 UJ
Aluminum	2.3E+05	mg/kg	3580	5270	4480	--	4800	4250	3550	--
Antimony	9.4E+01	mg/kg	0.93 UJ	0.94 UJ	0.9 UJ	--	0.93 UJ	1 UJ	1 J	--
Arsenic	3.9E+01	mg/kg	6.2	4.9	5.8	--	4.6	5.9	9.4	--
Barium	4.6E+04	mg/kg	28.2	35.9	27.3	--	25.7	31.5	84.1	--
Beryllium	4.7E+02	mg/kg	0.37 U	0.38 U	0.36 U	--	0.37 U	0.4 U	0.4 U	--
Cadmium	2.1E+02	mg/kg	0.37 U	0.38 U	0.36 U	--	0.37 U	0.4 U	1.9	--
Calcium	NA	mg/kg	36900 J	14800 J	16400 J	--	25600 J	27800 J	30300 J	--
Chromium	3.5E+05	mg/kg	9 J	7.8 J	6.6 J	--	13.6 J	10.1	46.2	--
Cobalt	7.0E+01	mg/kg	4.6 U	4.7 U	4.5 U	--	4.7 U	5 U	5 U	--
Copper	9.4E+03	mg/kg	15	8.2	9.9	--	8.6	12.5	52.3	--
Iron	1.6E+05	mg/kg	11300	8300	10600	--	10900	10200 J	11700 J	--
Lead	4.0E+02	mg/kg	23.9 J	11.9 J	11.6 J	--	19.5 J	25.1	75.9	--
Magnesium	NA	mg/kg	14200 J	8450 J	7750 J	--	10600 J	8270	6610	--
Manganese	5.5E+03	mg/kg	481	287	339	--	298	395	230	--
Mercury	3.0E+01	mg/kg	0.04	0.033 U	0.037	--	0.049	0.052	0.19	--
Nickel	4.6E+03	mg/kg	8.1	7.3	8.1	--	9.4	8.9	15.5	--
Potassium	NA	mg/kg	590 J	515 J	494 J	--	470 UJ	602 J	541 J	--
Selenium	1.2E+03	mg/kg	0.93 U	0.94 U	0.9 U	--	0.93 U	1 U	1 U	--
Silver	1.2E+03	mg/kg	0.46 U	0.47 U	0.45 U	--	0.47 U	0.5 U	0.5 U	--
Sodium	NA	mg/kg	460 U	470 U	450 U	--	470 U	500 U	500 U	--
Thallium	2.3E+00	mg/kg	0.93 U	0.94 U	0.9 U	--	0.93 U	1 U	1 U	--
Vanadium	1.2E+03	mg/kg	10.7	11.2	11.7	--	14	15.3	11.3	--
Zinc	7.0E+04	mg/kg	106 J	40.2 J	56.3 J	--	54.4 J	81.3 J	117 J	--

Notes:

-- = Not analyzed

HQ = Hazard Quotient

J = Concentration estimated

mg/kg = milligram per kilogram

mV = millivolt

NA = Not available

RML = Removal Management Level

S.U. = Standard Unit

U = Constituent not detected; Reporting limit is presented

ATTACHMENT E
LABORATORY ANALYTICAL RESULTS



06/24/13

Technical Report for

Weston Solutions

Beck's Lake, South Bend, IN

Accutest Job Number: MC21692

Sampling Date: 06/11/13

Report to:

**Weston Solutions, Inc.
70W. Madison Street Suite 1990
Chicago, IL 60602
krista.richardson@westonsolutions.com**
ATTN: Krista Richardson

Total number of pages in report: 50



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



Reza Pand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220)
ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Case Narrative/Conformance Summary	4
Section 3: Summary of Hits	6
Section 4: Sample Results	11
4.1: MC21692-1: BLSO01(0-3)-061113	12
4.2: MC21692-2: BLSO02(0-3)-061113	13
4.3: MC21692-3: BLSO03(0-3)-061113	14
4.4: MC21692-4: BLSO04(0-3)-061113	15
4.5: MC21692-5: BLSO05(0-3)-061113	16
4.6: MC21692-6: BLSO06(0-3)-061113	17
4.7: MC21692-7: BLSO07(0-3)-061113	18
4.8: MC21692-8: BLSO08(0-3)-061113	19
4.9: MC21692-9: BLSO07S(0-3)-061113	20
4.10: MC21692-10: BLSO82(0-3)-061113	21
4.11: MC21692-11: BLSO86(0-3)-061113	22
4.12: MC21692-12: BLSO90(0-3)-061113	23
4.13: MC21692-13: BLSO92(0-3)-061113	24
Section 5: Misc. Forms	25
5.1: Chain of Custody	26
Section 6: Metals Analysis - QC Data Summaries	29
6.1: Prep QC MP21170: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn	30
6.2: Prep QC MP21192: Hg	42
Section 7: General Chemistry - QC Data Summaries	47
7.1: Method Blank and Spike Results Summary	48
7.2: Duplicate Results Summary	49
7.3: Matrix Spike Results Summary	50

1
2
3
4
5
6
7

Sample Summary

Weston Solutions

Job No: MC21692

Beck's Lake, South Bend, IN

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID	
MC21692-1	06/11/13	11:45 JB	06/12/13	SO	Soil	BLSO01(0-3)-061113
MC21692-2	06/11/13	11:52 JB	06/12/13	SO	Soil	BLSO02(0-3)-061113
MC21692-3	06/11/13	11:57 JB	06/12/13	SO	Soil	BLSO03(0-3)-061113
MC21692-4	06/11/13	12:03 JB	06/12/13	SO	Soil	BLSO04(0-3)-061113
MC21692-5	06/11/13	12:07 JB	06/12/13	SO	Soil	BLSO05(0-3)-061113
MC21692-6	06/11/13	12:12 JB	06/12/13	SO	Soil	BLSO06(0-3)-061113
MC21692-7	06/11/13	12:18 JB	06/12/13	SO	Soil	BLSO07(0-3)-061113
MC21692-8	06/11/13	12:23 JB	06/12/13	SO	Soil	BLSO08(0-3)-061113
MC21692-9	06/11/13	17:20 JB	06/12/13	SO	Soil	BLSO7S(0-3)-061113
MC21692-10	06/11/13	17:30 JB	06/12/13	SO	Soil	BLSO82(0-3)-061113
MC21692-11	06/11/13	17:35 JB	06/12/13	SO	Soil	BLSO86(0-3)-061113
MC21692-12	06/11/13	17:39 JB	06/12/13	SO	Soil	BLSO90(0-3)-061113
MC21692-13	06/11/13	17:42 JB	06/12/13	SO	Soil	BLSO92(0-3)-061113

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Weston Solutions

Job No MC21692

Site: Beck's Lake, South Bend, IN

Report Date 6/24/2013 10:01:38 AM

13 Sample(s) were collected on 06/11/2013 and were received at Accutest on 06/12/2013 properly preserved, at 0.5 Deg. C and intact. These Samples received an Accutest job number of MC21692. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals By Method SW846 6010C

Matrix SO	Batch ID: MP21170
------------------	--------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21692-7MS, MC21692-7MSD, MC21692-7PS, MC21692-7SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony, Zinc are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.
- Matrix Spike Duplicate Recovery(s) for Antimony, Zinc are outside control limits. Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
- MS/MSD Recovery(s) for Aluminum, Calcium, Iron, Manganese are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for MSD for Calcium, Manganese are outside control limits for sample MP21170-S2. High RPD due to possible matrix interference and/or sample non-homogeneity.
- RPD(s) for Serial Dilution for Antimony, Beryllium, Selenium are outside control limits for sample MP21170-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method SW846 7471B

Matrix SO	Batch ID: MP21192
------------------	--------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21631-13MS, MC21631-13MSD were used as the QC samples for metals.

Wet Chemistry By Method ASTM D1498-76M

Matrix SO	Batch ID: GN43238
------------------	--------------------------

- Sample(s) MC21692-13DUP were used as the QC samples for Redox Potential Vs H2.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix SO	Batch ID: GN43256
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- Sample(s) MC21692-1DUP were used as the QC samples for Solids, Percent.

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO

Batch ID: GP16205

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21734-4DUP, MC21734-4MS were used as the QC samples for Chromium, Hexavalent.
- Matrix Spike Recovery(s) for Chromium, Hexavalent are outside control limits. Insoluble spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Refer to spike blank.
- GP16205-S1 for Chromium, Hexavalent: Soluble spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Refer to spike blank.

Wet Chemistry By Method SW846 9045D

Matrix SO

Batch ID: GN43234

- Sample(s) MC21671-2DUP were used as the QC samples for pH.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC21692).

Summary of Hits

Page 1 of 5

Job Number:

MC21692

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/11/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
--------------------------	------------------	-----------------	----	-----	-------	--------

MC21692-1 BLSO01(0-3)-061113

Aluminum	3450	17		mg/kg	SW846 6010C
Antimony	1.7	0.83		mg/kg	SW846 6010C
Arsenic	8.1	0.83		mg/kg	SW846 6010C
Barium	107	4.2		mg/kg	SW846 6010C
Beryllium	0.36	0.33		mg/kg	SW846 6010C
Cadmium	1.5	0.33		mg/kg	SW846 6010C
Calcium	22000	420		mg/kg	SW846 6010C
Chromium	23.7	0.83		mg/kg	SW846 6010C
Copper	76.5	2.1		mg/kg	SW846 6010C
Iron	12900	8.3		mg/kg	SW846 6010C
Lead	163	0.83		mg/kg	SW846 6010C
Magnesium	6320	420		mg/kg	SW846 6010C
Manganese	246	1.3		mg/kg	SW846 6010C
Mercury	0.33	0.039		mg/kg	SW846 7471B
Nickel	14.7	3.3		mg/kg	SW846 6010C
Potassium	530	420		mg/kg	SW846 6010C
Silver	0.59	0.42		mg/kg	SW846 6010C
Vanadium	10.8	0.83		mg/kg	SW846 6010C
Zinc	214	1.7		mg/kg	SW846 6010C

MC21692-2 BLSO02(0-3)-061113

Aluminum	3840	17		mg/kg	SW846 6010C
Arsenic	9.8	0.84		mg/kg	SW846 6010C
Barium	71.8	4.2		mg/kg	SW846 6010C
Cadmium	0.84	0.34		mg/kg	SW846 6010C
Calcium	25900	420		mg/kg	SW846 6010C
Chromium	8.6	0.84		mg/kg	SW846 6010C
Copper	26.5	2.1		mg/kg	SW846 6010C
Iron	10400	8.4		mg/kg	SW846 6010C
Lead	56.5	0.84		mg/kg	SW846 6010C
Magnesium	4730	420		mg/kg	SW846 6010C
Manganese	223	1.3		mg/kg	SW846 6010C
Mercury	0.10	0.039		mg/kg	SW846 7471B
Nickel	8.7	3.4		mg/kg	SW846 6010C
Potassium	630	420		mg/kg	SW846 6010C
Selenium	0.85	0.84		mg/kg	SW846 6010C
Vanadium	10.7	0.84		mg/kg	SW846 6010C
Zinc	68.6	1.7		mg/kg	SW846 6010C

MC21692-3 BLSO03(0-3)-061113

Aluminum	2690	16		mg/kg	SW846 6010C
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Summary of Hits

Page 2 of 5

Job Number: MC21692
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Arsenic	9.6	0.79			mg/kg	SW846 6010C
Barium	65.3	4.0			mg/kg	SW846 6010C
Cadmium	0.67	0.32			mg/kg	SW846 6010C
Calcium	38000	400			mg/kg	SW846 6010C
Chromium	7.2	0.79			mg/kg	SW846 6010C
Copper	22.7	2.0			mg/kg	SW846 6010C
Iron	8420	7.9			mg/kg	SW846 6010C
Lead	58.5	0.79			mg/kg	SW846 6010C
Magnesium	6160	400			mg/kg	SW846 6010C
Manganese	223	1.2			mg/kg	SW846 6010C
Mercury	0.074	0.036			mg/kg	SW846 7471B
Nickel	7.0	3.2			mg/kg	SW846 6010C
Potassium	480	400			mg/kg	SW846 6010C
Vanadium	8.7	0.79			mg/kg	SW846 6010C
Zinc	71.8	1.6			mg/kg	SW846 6010C

MC21692-4 BLS004(0-3)-061113

Aluminum	4280	16			mg/kg	SW846 6010C
Arsenic	14.9	0.78			mg/kg	SW846 6010C
Barium	90.6	3.9			mg/kg	SW846 6010C
Beryllium	0.32	0.31			mg/kg	SW846 6010C
Cadmium	1.1	0.31			mg/kg	SW846 6010C
Calcium	31200	390			mg/kg	SW846 6010C
Chromium	12.7	0.78			mg/kg	SW846 6010C
Copper	28.5	1.9			mg/kg	SW846 6010C
Iron	12400	7.8			mg/kg	SW846 6010C
Lead	77.6	0.78			mg/kg	SW846 6010C
Magnesium	2810	390			mg/kg	SW846 6010C
Manganese	206	1.2			mg/kg	SW846 6010C
Mercury	0.13	0.037			mg/kg	SW846 7471B
Nickel	9.6	3.1			mg/kg	SW846 6010C
Potassium	609	390			mg/kg	SW846 6010C
Selenium	1.2	0.78			mg/kg	SW846 6010C
Vanadium	12.0	0.78			mg/kg	SW846 6010C
Zinc	83.4	1.6			mg/kg	SW846 6010C

MC21692-5 BLS005(0-3)-061113

Aluminum	6180	17			mg/kg	SW846 6010C
Arsenic	11.9	0.85			mg/kg	SW846 6010C
Barium	129	4.2			mg/kg	SW846 6010C
Beryllium	0.46	0.34			mg/kg	SW846 6010C
Cadmium	0.99	0.34			mg/kg	SW846 6010C
Calcium	20800	420			mg/kg	SW846 6010C

Summary of Hits

Page 3 of 5

Job Number:

MC21692

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/11/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Chromium		13.1	0.85		mg/kg	SW846 6010C
Cobalt		4.7	4.2		mg/kg	SW846 6010C
Copper		33.3	2.1		mg/kg	SW846 6010C
Iron		12700	8.5		mg/kg	SW846 6010C
Lead		85.7	0.85		mg/kg	SW846 6010C
Magnesium		4300	420		mg/kg	SW846 6010C
Manganese		426	1.3		mg/kg	SW846 6010C
Mercury		0.12	0.042		mg/kg	SW846 7471B
Nickel		10.3	3.4		mg/kg	SW846 6010C
Potassium		751	420		mg/kg	SW846 6010C
Vanadium		16.2	0.85		mg/kg	SW846 6010C
Zinc		112	1.7		mg/kg	SW846 6010C

MC21692-6 BLSO06(0-3)-061113

Aluminum	3760	14		mg/kg	SW846 6010C
Arsenic	13.0	0.68		mg/kg	SW846 6010C
Barium	118	3.4		mg/kg	SW846 6010C
Beryllium	0.30	0.27		mg/kg	SW846 6010C
Cadmium	1.5	0.27		mg/kg	SW846 6010C
Calcium	70300	1700		mg/kg	SW846 6010C
Chromium	15.7	0.68		mg/kg	SW846 6010C
Cobalt	4.1	3.4		mg/kg	SW846 6010C
Copper	47.2	1.7		mg/kg	SW846 6010C
Iron	11900	6.8		mg/kg	SW846 6010C
Lead	123	0.68		mg/kg	SW846 6010C
Magnesium	3370	340		mg/kg	SW846 6010C
Manganese	379	1.0		mg/kg	SW846 6010C
Mercury	0.14	0.039		mg/kg	SW846 7471B
Nickel	10.2	2.7		mg/kg	SW846 6010C
Potassium	511	340		mg/kg	SW846 6010C
Selenium	0.74	0.68		mg/kg	SW846 6010C
Vanadium	10.3	0.68		mg/kg	SW846 6010C
Zinc	110	1.4		mg/kg	SW846 6010C

MC21692-7 BLSO07(0-3)-061113

Aluminum	5720	16		mg/kg	SW846 6010C
Arsenic	6.0	0.82		mg/kg	SW846 6010C
Barium	80.2	4.1		mg/kg	SW846 6010C
Beryllium	0.37	0.33		mg/kg	SW846 6010C
Cadmium	0.50	0.33		mg/kg	SW846 6010C
Calcium	13000	410		mg/kg	SW846 6010C
Chromium	11.4	0.82		mg/kg	SW846 6010C
Copper	22.2	2.0		mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21692
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Iron	11100	8.2		mg/kg	SW846 6010C
Lead	45.2	0.82		mg/kg	SW846 6010C
Magnesium	2430	410		mg/kg	SW846 6010C
Manganese	326	1.2		mg/kg	SW846 6010C
Mercury	0.059	0.038		mg/kg	SW846 7471B
Nickel	9.0	3.3		mg/kg	SW846 6010C
Potassium	680	410		mg/kg	SW846 6010C
Vanadium	15.3	0.82		mg/kg	SW846 6010C
Zinc	66.6	1.6		mg/kg	SW846 6010C

MC21692-8 BLSO08(0-3)-061113

Aluminum	4820	15		mg/kg	SW846 6010C
Arsenic	8.2	0.76		mg/kg	SW846 6010C
Barium	74.6	3.8		mg/kg	SW846 6010C
Cadmium	0.67	0.31		mg/kg	SW846 6010C
Calcium	10900	380		mg/kg	SW846 6010C
Chromium	10.7	0.76		mg/kg	SW846 6010C
Copper	23.0	1.9		mg/kg	SW846 6010C
Iron	8320	7.6		mg/kg	SW846 6010C
Lead	74.7	0.76		mg/kg	SW846 6010C
Magnesium	3460	380		mg/kg	SW846 6010C
Manganese	320	1.1		mg/kg	SW846 6010C
Mercury	0.14	0.034		mg/kg	SW846 7471B
Nickel	8.7	3.1		mg/kg	SW846 6010C
Potassium	702	380		mg/kg	SW846 6010C
Vanadium	12.6	0.76		mg/kg	SW846 6010C
Zinc	74.6	1.5		mg/kg	SW846 6010C

MC21692-9 BLSO7S(0-3)-061113

Chromium, Hexavalent	5.0	1.2		mg/kg	SW846 3060A/7196A
Redox Potential Vs H2	519			mv	ASTM D1498-76M
pH	6.8			su	SW846 9045D

MC21692-10 BLSO82(0-3)-061113

Redox Potential Vs H2	515			mv	ASTM D1498-76M
pH	7.9			su	SW846 9045D

MC21692-11 BLSO86(0-3)-061113

Chromium, Hexavalent	1.4	0.41		mg/kg	SW846 3060A/7196A
Redox Potential Vs H2	514			mv	ASTM D1498-76M
pH	8.0			su	SW846 9045D

Summary of Hits

Job Number: MC21692
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13

3

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

MC21692-12 BLSO90(0-3)-061113

Redox Potential Vs H2	511	mv	ASTM D1498-76M
pH	8.0	su	SW846 9045D

MC21692-13 BLSO92(0-3)-061113

Redox Potential Vs H2	470	mv	ASTM D1498-76M
pH	7.9	su	SW846 9045D



4

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO01(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-1	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	80.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3450	17	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	1.7	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.1	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	107	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.36	0.33	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.5	0.33	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	22000	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	23.7	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 4.2	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	76.5	2.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	12900	8.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	163	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	6320	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	246	1.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.33	0.039	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	14.7	3.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	530	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.83	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	0.59	0.42	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 420	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.83	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	10.8	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	214	1.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.2
4

Client Sample ID:	BLSO02(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-2	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	76.4
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3840	17	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.84	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	9.8	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	71.8	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.34	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.84	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	25900	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	8.6	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 4.2	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	26.5	2.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	10400	8.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	56.5	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	4730	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	223	1.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.10	0.039	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	8.7	3.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	630	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	0.85	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.42	0.42	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 420	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.84	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	10.7	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	68.6	1.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BLSO03(0-3)-061113**Lab Sample ID:** MC21692-3**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/12/13**Percent Solids:** 84.7**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2690	16	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.79	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	9.6	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	65.3	4.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.32	0.32	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.67	0.32	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	38000	400	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	7.2	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 4.0	4.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	22.7	2.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	8420	7.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	58.5	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	6160	400	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	223	1.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.074	0.036	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	7.0	3.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	480	400	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.79	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.40	0.40	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 400	400	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.79	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	8.7	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	71.8	1.6	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO04(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-4	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	82.8
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4280	16	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.78	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	14.9	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	90.6	3.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.32	0.31	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.1	0.31	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	31200	390	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.7	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 3.9	3.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	28.5	1.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	12400	7.8	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	77.6	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2810	390	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	206	1.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.13	0.037	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	9.6	3.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	609	390	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	1.2	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.39	0.39	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 390	390	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.78	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	12.0	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	83.4	1.6	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO05(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-5	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	70.8
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6180	17	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.85	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	11.9	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	129	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.46	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.99	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	20800	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	13.1	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	4.7	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	33.3	2.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	12700	8.5	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	85.7	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	4300	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	426	1.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.12	0.042	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	10.3	3.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	751	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.85	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.42	0.42	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 420	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.85	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	16.2	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	112	1.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BLSO06(0-3)-061113
Lab Sample ID: MC21692-6
Matrix: SO - Soil
Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
Date Received: 06/12/13
Percent Solids: 83.5

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3760	14	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.68	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	13.0	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	118	3.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.30	0.27	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.5	0.27	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	70300	1700	mg/kg	5	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	15.7	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	4.1	3.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	47.2	1.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	11900	6.8	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	123	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	3370	340	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	379	1.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.14	0.039	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	10.2	2.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	511	340	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	0.74	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.34	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 340	340	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.68	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	10.3	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	110	1.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO07(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-7	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	79.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5720	16	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.82	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	6.0	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	80.2	4.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.37	0.33	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.50	0.33	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	13000	410	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	11.4	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 4.1	4.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	22.2	2.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	11100	8.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	45.2	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2430	410	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	326	1.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.059	0.038	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	9.0	3.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	680	410	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.82	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.41	0.41	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 410	410	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.82	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	15.3	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	66.6	1.6	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BLSO08(0-3)-061113
Lab Sample ID: MC21692-8
Matrix: SO - Soil
Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
Date Received: 06/12/13
Percent Solids: 86.0

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4820	15	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.76	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.2	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	74.6	3.8	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.31	0.31	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.67	0.31	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	10900	380	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	10.7	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 3.8	3.8	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	23.0	1.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	8320	7.6	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	74.7	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	3460	380	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	320	1.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.14	0.034	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	8.7	3.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	702	380	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.76	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.38	0.38	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 380	380	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.76	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	12.6	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	74.6	1.5	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO7S(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-9	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	32.2
Project:	Beck's Lake, South Bend, IN		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	5.0	1.2	mg/kg	1	06/17/13 16:55	CF	SW846 3060A/7196A
Redox Potential Vs H2	519		mv	1	06/12/13	MA	ASTM D1498-76M
Solids, Percent	32.2		%	1	06/13/13	HS	SM21 2540 B MOD.
pH	6.8		su	1	06/12/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO82(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-10	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	90.5
Project:	Beck's Lake, South Bend, IN		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.43	0.43	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	515		mv	1	06/12/13	MA	ASTM D1498-76M
Solids, Percent	90.5		%	1	06/13/13	HS	SM21 2540 B MOD.
pH	7.9		su	1	06/12/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO86(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-11	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	96.3
Project:	Beck's Lake, South Bend, IN		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.4	0.41	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	514		mv	1	06/12/13	MA	ASTM D1498-76M
Solids, Percent	96.3		%	1	06/13/13	HS	SM21 2540 B MOD.
pH	8.0		su	1	06/12/13	MA	SW846 9045D

RL = Reporting Limit

4.11

4

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO90(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-12	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	91.7
Project:	Beck's Lake, South Bend, IN		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.43	0.43	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	511		mv	1	06/12/13	MA	ASTM D1498-76M
Solids, Percent	91.7		%	1	06/13/13	HS	SM21 2540 B MOD.
pH	8.0		su	1	06/12/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO92(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-13	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	89.5
Project:	Beck's Lake, South Bend, IN		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.45	0.45	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	470		mv	1	06/12/13	MA	ASTM D1498-76M
Solids, Percent	89.5		%	1	06/13/13	HS	SM21 2540 B MOD.
pH	7.9		su	1	06/12/13	MA	SW846 9045D

RL = Reporting Limit



Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 2

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # MC21692
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	
DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
TAL Metals	
Chromium	
LAB USE ONLY	

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)										Matrix Codes	
Company Name Weston	Project Name Beck's Lake	Street Address 20 N. Wacker	Street:	Billing Information (If different from Report to)											
City Chicago State IL Zip 60606	City: South Bend, IN	Company Name													
Project Contact Kristen Richardson	E-mail Kristen.Richardson@westonsolutions.com	Project#	Project#	Street Address											
Phone # (847)918-4400	Fax #	Client PO#		City	State	Zip									
Sampler(s) Name(s) Caren L. Ford	Phone # (312)424-5367	Project Manager		Attention:		PO#									
Accutest Sample #	Field ID / Point of Collection	MEQ#DI Vial #	Collection	Sampled by	Matrix	# of bottles	Number of preserved Bottles								
-1	BL SO 01(0-3)-001113		6/11/13	11:45	JB	S	1	ND	NICH	HNO3	H2SO4	None	DI Water	ENCONE	Bottles
-2	BL SO 02(0-3)-001113		6/11/13	11:52	JB	S	1							X	
-3	BL SO 03(0-3)-001113		6/11/13	11:57	JB	S	1							X	
-4	BL SO 04(0-3)-001113		6/11/13	12:03	JB	S	1							X	
-5	BL SO 05(0-3)-001113		6/11/13	12:07	JB	S	1							X	
-6	BL SO 06(0-3)-001113		6/11/13	12:12	JB	S	1							X	
-7	BL SO 07(0-3)-001113		6/11/13	12:18	JB	S	1							X	
-8	BL SO 08(0-3)-001113		6/11/13	12:23	JB	S	1							X	
	BL SO 09(0-3)-001113														IIF
	BL SO 10(0-3)-001113														
	BL SO 11(0-3)-001113														

Data Deliverable Information		Comments / Special Instructions			
Turnaround Time (Business days)	Approved By (Accutest PM): / Date:	<input type="checkbox"/> Commercial "A" (Level 1) <input checked="" type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULL1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP	<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____		
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Commercial "A" = Results Only Commercial "B" = Results + QC Summary			
Emergency & Rush T/A data available VIA Lablink					
Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: 1	Date Time: 6/11/13 18:35	Received By: FX	Relinquished By: 2	Date Time: 6/12/13 9:30	Received By: FX
Relinquished by Sampler: 3	Date Time: 3	Received By: 4	Relinquished By: 4	Date Time: 4	Received By: 4
Relinquished by: 5	Date Time: 5	Received By: 5	Custody Seal #	<input type="checkbox"/> intact <input type="checkbox"/> Not intact	Preserved where applicable On Ics 0.5

CHICAGO SC

MC21692: Chain of Custody

Page 1 of 3

5.1



CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 2 OF 2

FED-EX Tracking #	Bottle Order Control #
	MC21692
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SL - Sediment
SED - Sediment
Oil - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Client / Reporting Information		Project Information										
Company Name Weston	Project Name Beck's Late											
Street Address 20 N. Wacker	Street											
City State Zip Chicago IL 60606	City South Bend, IN											
Project Contact Krista Richardson krista.richardson@westonsolutions.com		Billing Information (If different from Report to)										
Phone # (847) 918-4060	Fax #	Company Name										
Sampler(s) Name(s) Justin Furd	Phone # (312) 472-3307	Project Manager										
		Attention: PO#										
Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection			Matrix	Number of preserved Bottles					
			Date	Time	Sampled by		# of bottles:	HCl	NaOH	HNO3	HSCN	None

Turnaround Time (Business days)	Approved By (Accutest PM): I Date:	Data Deliverable Information
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY	<input type="checkbox"/> Commercial "A" (Level 1) <input checked="" type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULL/TI (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP	<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____
		Commercial "A" = Results Only Commercial "B" = Results + QC Summary
Comments / Special Instructions		

Relinquished by Sampler: 1 (Cutt)	Date Time: 6/11/13 10:35	Received By: 1 FX	Relinquished By: 2 FX	Date Time: 6/12/13 9:30	Received By: 2 CHICAGO SO
Relinquished by Sampler: 3	Date Time: 3	Received By: 4	Relinquished By: 4	Date Time: 4	Received By: 4
Relinquished by: 5	Date Time: 5	Received By: 5	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable On Ice
					Cooler Temp. 80.5

MC21692: Chain of Custody
Page 2 of 3



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC21692

Client: WESTON

Immediate Client Services Action Required: No

Date / Time Received: 6/12/2013

Delivery Method:

Client Service Action Required at Login: No

Project: BECKS LAKE

No. Coolers: 1

Airbill #'s:

Cooler Security**Y or N****Y or N**

1. Custody Seals Present: 3. COC Present:
2. Custody Seals Intact: 4. Smpl Dates/Time OK

Cooler Temperature**Y or N**

1. Temp criteria achieved:
2. Cooler temp verification: Infared gun
3. Cooler media: Ice (bag)

Quality Control Preservation**Y or N****N/A**

1. Trip Blank present / cooler:
2. Trip Blank listed on COC:
3. Samples preserved properly:
4. VOCs headspace free:

Sample Integrity - Documentation**Y or N**

1. Sample labels present on bottles:
2. Container labeling complete:
3. Sample container label / COC agree:

Sample Integrity - Condition**Y or N**

1. Sample recvd within HT:
2. All containers accounted for:
3. Condition of sample: Intact

Sample Integrity - Instructions**Y or N****N/A**

1. Analysis requested is clear:
2. Bottles received for unspecified tests:
3. Sufficient volume recvd for analysis:
4. Compositing instructions clear:
5. Filtering instructions clear:

Comments

Accutest Laboratories
V:508.481.6200495 Technology Center West, Bldg One
F: 508.481.7753Marlborough, MA
www.accutest.com**MC21692: Chain of Custody****Page 3 of 3**



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

06/13/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	1.2	3.6	-0.49	<20
Antimony	1.0	.11	.15	-0.060	<1.0
Arsenic	1.0	.17	.21	-0.040	<1.0
Barium	5.0	.032	.073	0.060	<5.0
Beryllium	0.40	.01	.024	0.010	<0.40
Boron	10	.11	.11		
Cadmium	0.40	.025	.042	-0.010	<0.40
Calcium	500	2.1	6.3	3.7	<500
Chromium	1.0	.048	.095	0.0	<1.0
Cobalt	5.0	.029	.047	0.020	<5.0
Copper	2.5	.093	.56	-0.010	<2.5
Gold	5.0	.15	.43		
Iron	10	.35	.87	0.84	<10
Lead	1.0	.12	.17	0.070	<1.0
Magnesium	500	3	5.1	1.2	<500
Manganese	1.5	.016	.04	0.060	<1.5
Molybdenum	10	.031	.07		
Nickel	4.0	.045	.044	0.020	<4.0
Palladium	5.0	.22	.64		
Platinum	5.0	.64	1.5		
Potassium	500	5.4	8.6	7.3	<500
Selenium	1.0	.17	.35	-0.090	<1.0
Silicon	10	.2	3.3		
Silver	0.50	.081	.13	0.030	<0.50
Sodium	500	1.6	3.3	2.6	<500
Strontium	1.0	.012	.03		
Thallium	1.0	.12	.13	-0.030	<1.0
Tin	10	.087	.14		
Titanium	5.0	.066	.14		
Tungsten	10	.93	.94		
Vanadium	1.0	.082	.13	-0.020	<1.0
Zinc	2.0	.045	.16	0.27	<2.0
Zirconium	5.0	.045	.088		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21170: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21692
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 06/13/13

Metal	MC21692-7 Original MS	Spikelot MPICP	% Rec	QC Limits
Aluminum	5720	6620	164	547.5(a) 75-125
Antimony	0.23	17.5	41.1	42.0 (b) 75-125
Arsenic	6.0	41.1	41.1	85.4 75-125
Barium	80.2	227	164	89.3 75-125
Beryllium	0.37	38.6	41.1	93.0 75-125
Boron				
Cadmium	0.50	38.0	41.1	91.2 75-125
Calcium	13000	29000	2050	778.6(a) 75-125
Chromium	11.4	47.9	41.1	88.8 75-125
Cobalt	3.9	39.9	41.1	87.6 75-125
Copper	22.2	57.3	41.1	85.4 75-125
Gold				
Iron	11100	9860	164	-754.3(a) 75-125
Lead	45.2	110	82.2	78.8 75-125
Magnesium	2430	4900	2050	120.2 75-125
Manganese	326	436	41.1	267.7(a) 75-125
Molybdenum				
Nickel	9.0	42.5	41.1	81.5 75-125
Palladium				
Platinum				
Potassium	680	2560	2050	91.5 75-125
Selenium	0.21	36.4	41.1	88.1 75-125
Silicon				
Silver	0.0	15.6	16.4	94.9 75-125
Sodium	26.5	1880	2050	90.2 75-125
Strontium				
Thallium	0.0	34.8	41.1	84.7 75-125
Tin				
Titanium				
Tungsten				
Vanadium	15.3	52.1	41.1	89.5 75-125
Zinc	66.6	95.3	41.1	69.8 (b) 75-125
Zirconium				

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21170: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.

6.1.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21692
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/13/13

Metal	MC21692-7 Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum	5720	6740	164	620.5(a)	1.8	20
Antimony	0.23	15.7	41.1	37.6 (b)	10.8	20
Arsenic	6.0	40.0	41.1	82.7	2.7	20
Barium	80.2	227	164	89.3	0.0	20
Beryllium	0.37	37.2	41.1	89.6	3.7	20
Boron						
Cadmium	0.50	36.6	41.1	87.8	3.8	20
Calcium	13000	20500	2050	365.0(a)	34.3 (c)	20
Chromium	11.4	47.5	41.1	87.8	0.8	20
Cobalt	3.9	38.9	41.1	85.2	2.5	20
Copper	22.2	56.0	41.1	82.2	2.3	20
Gold						
Iron	11100	9790	164	-796.9(a)	0.7	20
Lead	45.2	109	82.2	77.6	0.9	20
Magnesium	2430	4570	2050	104.1	7.0	20
Manganese	326	353	41.1	65.7 (a)	21.0 (c)	20
Molybdenum						
Nickel	9.0	41.7	41.1	79.6	1.9	20
Palladium						
Platinum						
Potassium	680	2540	2050	90.5	0.8	20
Selenium	0.21	35.3	41.1	85.4	3.1	20
Silicon						
Silver	0.0	15.0	16.4	91.2	3.9	20
Sodium	26.5	1830	2050	87.8	2.7	20
Strontium						
Thallium	0.0	33.9	41.1	82.5	2.6	20
Tin						
Titanium						
Tungsten						
Vanadium	15.3	51.5	41.1	88.1	1.2	20
Zinc	66.6	96.3	41.1	72.3 (b)	1.0	20
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21170: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
 - (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
 - (b) Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
 - (c) High RPD due to possible matrix interference and/or sample non-homogeneity.

6.1.2
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21692
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/13/13

06/13/13

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	LCS Result	Spikelot MPLCS80	% Rec	QC Limits
Aluminum	194	200	97.0	80-120	7780	8840	88.0	54-146
Antimony	46.8	50	93.6	80-120	73.4	88.2	83.2	11-231
Arsenic	46.7	50	93.4	80-120	98.2	99.6	98.6	81-119
Barium	192	200	96.0	80-120	315	310	101.6	83-117
Beryllium	49.1	50	98.2	80-120	73.3	72.3	101.4	82-118
Boron								
Cadmium	47.1	50	94.2	80-120	181	182	99.5	82-118
Calcium	2350	2500	94.0	80-120	6470	6790	95.3	83-118
Chromium	48.0	50	96.0	80-120	134	136	98.5	80-121
Cobalt	47.3	50	94.6	80-120	125	128	97.7	83-116
Copper	44.5	50	89.0	80-120	95.3	102	93.4	81-119
Gold								
Iron	207	200	103.5	80-120	11100	12600	88.1	41-158
Lead	91.1	100	91.1	80-120	110	115	95.7	82-119
Magnesium	2420	2500	96.8	80-120	2940	3010	97.7	77-123
Manganese	45.5	50	91.0	80-120	302	323	93.5	82-117
Molybdenum								
Nickel	44.8	50	89.6	80-120	145	153	94.8	82-118
Palladium								
Platinum								
Potassium	2400	2500	96.0	80-120	2740	2840	96.5	71-129
Selenium	46.4	50	92.8	80-120	148	150	98.7	77-123
Silicon								
Silver	18.7	20	93.5	80-120	41.0	40.4	101.5	75-125
Sodium	2340	2500	93.6	80-120	2730	2760	98.9	71-129
Strontium								
Thallium	46.2	50	92.4	80-120	174	174	100.0	79-122
Tin								
Titanium								
Tungsten								
Vanadium	47.8	50	95.6	80-120	91.3	97.6	93.5	77-123
Zinc	48.1	50	96.2	80-120	148	161	91.9	81-119
Zirconium								

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21170: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21692
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

06/13/13

Metal	MC21692-7			QC Limits
	Original	SDL 1:5	%DIF	
Aluminum	70100	72800	3.8	0-10
Antimony	2.80	0.00	100.0(a)	0-10
Arsenic	73.9	72.8	1.5	0-10
Barium	982	1030	4.9	0-10
Beryllium	4.50	5.00	11.1 (a)	0-10
Boron				
Cadmium	6.10	6.30	3.3	0-10
Calcium	159000	169000	6.3	0-10
Chromium	140	146	4.4	0-10
Cobalt	47.6	50.0	5.0	0-10
Copper	272	277	1.5	0-10
Gold				
Iron	136000	145000	6.6	0-10
Lead	553	591	6.9	0-10
Magnesium	29700	31500	6.1	0-10
Manganese	4000	4220	5.5	0-10
Molybdenum				
Nickel	110	117	6.1	0-10
Palladium				
Platinum				
Potassium	8330	8870	6.6	0-10
Selenium	2.60	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	324	308	5.1	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	188	196	4.7	0-10
Zinc	815	885	8.6	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21170: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

6.1.4
6

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21692
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

06/13/13

Metal	Sample ml	Final ml	MC21692-7 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum									
Antimony	10	10.2	2.8	2.745098 21	.1	2	19.60784	93.1	80-120
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Gold									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium									
Silicon									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	10	10.2	815.3	799.3137 2158	.1	160	1568.627	86.6	80-120
Zirconium									

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21170
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21170: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

6.1.5
6

BLANK RESULTS SUMMARY
Part 2 - Method BlanksLogin Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, INQC Batch ID: MP21192
Matrix Type: SOLIDMethods: SW846 7471B
Units: mg/kg

Prep Date: 06/17/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0029	.0097	0.013	<0.033

Associated samples MP21192: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21192
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 06/17/13

Metal	MC21631-13 Original MS	Spikelot HGRWS1	QC % Rec	QC Limits
Mercury	0.017	0.47	0.492	92.1 80-120

Associated samples MP21192: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21192
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/17/13

Metal	MC21631-13 Original MSD	Spikelot HGRWS1	MSD % Rec	RPD	QC Limit
Mercury	0.017 0.48	0.492	94.1	2.1	20

Associated samples MP21192: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21192
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/17/13

06/17/13

Metal	BSP Result	Spikelot HGRWS1	QC % Rec	BSD Limits	Spikelot Result	HGRWS1	QC % Rec	BSD RPD	QC Limit
Mercury	0.46	0.5	92.0	80-120	0.46	0.5	92.0	0.0	30

Associated samples MP21192: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

6.2.3

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21192
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 06/17/13

Metal	LCS Result	Spikelot HGLCS80	QC % Rec	QC Limits
Mercury	20.2	19.9	101.5	69-130

Associated samples MP21192: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.2.3
6



General Chemistry

QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP16205/GN43286	0.40	0.0	mg/kg	741	689	93.0	80-120%
Chromium, Hexavalent	GP16205/GN43286			mg/kg	40	40.3	100.8	80-120%

Associated Samples:

Batch GP16205: MC21692-9, MC21692-10, MC21692-11, MC21692-12, MC21692-13

(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP16205/GN43286	MC21734-4	mg/kg	1.6	1.7	6.1	0-20%
Redox Potential Vs H2	GN43238	MC21692-13	mV	470	463	1.5	0-20%
Solids, Percent	GN43256	MC21692-1	%	80	81.5	1.9	0-20%
pH	GN43234	MC21671-2	su	6.4	6.4	0.0	0-20%

Associated Samples:

Batch GN43234: MC21692-9, MC21692-10, MC21692-11, MC21692-12, MC21692-13

Batch GN43238: MC21692-9, MC21692-10, MC21692-11, MC21692-12, MC21692-13

Batch GN43256: MC21692-1, MC21692-2, MC21692-3, MC21692-4, MC21692-5, MC21692-6, MC21692-7, MC21692-8, MC21692-9, MC21692-10, MC21692-11, MC21692-12, MC21692-13

Batch GP16205: MC21692-9, MC21692-10, MC21692-11, MC21692-12, MC21692-13

(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC21692
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP16205/GN43286	MC21734-4	mg/kg	1.6	1020	197	19.2(a)	75-125%
Chromium, Hexavalent	GP16205/GN43286	MC21734-4	mg/kg	1.6	47.8	3.0	2.9(b)	75-125%

Associated Samples:

Batch GP16205: MC21692-9, MC21692-10, MC21692-11, MC21692-12, MC21692-13

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Insoluble spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Refer to spike blank.

(b) Soluble spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Refer to spike blank.



06/25/13

Technical Report for

Weston Solutions

Beck's Lake, South Bend, IN

Accutest Job Number: MC21734

Sampling Date: 06/12/13

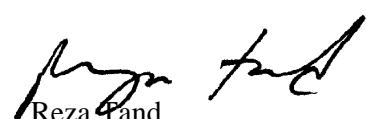
Report to:

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ATTN: Krista Richardson

Total number of pages in report: **91**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



Reza Pand
Lab Director

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Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220)
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Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Case Narrative/Conformance Summary	6
Section 3: Summary of Hits	9
Section 4: Sample Results	18
4.1: MC21734-1: BL-SO25(0-3)-061213	19
4.2: MC21734-2: BL-SO34(0-3)-061213	20
4.3: MC21734-3: BL-SO35(0-3)-061213	21
4.4: MC21734-4: BL-SO36(0-3)-061213	22
4.5: MC21734-5: BL-SO40(0-3)-061213	23
4.6: MC21734-6: BL-SO40(0-3)-061213D	24
4.7: MC21734-7: BL-SO17(0-3)-061213	25
4.8: MC21734-8: BL-SO17(0-3)-061213D	26
4.9: MC21734-9: BL-SO18(0-3)-061213	27
4.10: MC21734-10: BL-SO19(0-3)-061213	28
4.11: MC21734-11: BL-SO20(0-3)-061213	29
4.12: MC21734-12: BL-SO21(0-3)-061213	30
4.13: MC21734-13: BL-SO22(0-3)-061213	31
4.14: MC21734-14: BL-SO23(0-3)-061213	32
4.15: MC21734-15: BL-SO24(0-3)-061213	33
4.16: MC21734-16: BL-SO26(0-3)-061213	34
4.17: MC21734-17: BL-SO26(0-3)-061213D	35
4.18: MC21734-18: BL-SO27(0-3)-061213	36
4.19: MC21734-19: BL-SO28(0-3)-061213	37
4.20: MC21734-20: BL-SO29(0-3)-061213	38
4.21: MC21734-21: BL-SO30(0-3)-061213	39
4.22: MC21734-22: BL-SO31(0-3)-061213	40
4.23: MC21734-23: BL-SO32(0-3)-061213	41
4.24: MC21734-24: BL-SO33(0-3)-061213	42
Section 5: Misc. Forms	43
5.1: Chain of Custody	44
Section 6: Metals Analysis - QC Data Summaries	47
6.1: Prep QC MP21186: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn	48
6.2: Prep QC MP21187: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn	62
6.3: Prep QC MP21192: Hg	74
6.4: Prep QC MP21212: Hg	79
6.5: Prep QC MP21224: Hg	84
Section 7: General Chemistry - QC Data Summaries	88
7.1: Method Blank and Spike Results Summary	89
7.2: Duplicate Results Summary	90
7.3: Matrix Spike Results Summary	91



Sample Summary

Weston Solutions

Job No: MC21734

Beck's Lake, South Bend, IN

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID	
MC21734-1	06/12/13	09:35 CF	06/13/13	SO	Soil	BL-SO25(0-3)-061213
MC21734-2	06/12/13	11:05 CF	06/13/13	SO	Soil	BL-SO34(0-3)-061213
MC21734-3	06/12/13	11:30 CF	06/13/13	SO	Soil	BL-SO35(0-3)-061213
MC21734-4	06/12/13	11:35 CF	06/13/13	SO	Soil	BL-SO36(0-3)-061213
MC21734-4D	06/12/13	11:35 CF	06/13/13	SO	Soil Dup/MSD	BL-SO36(0-3)-061213
MC21734-4S	06/12/13	11:35 CF	06/13/13	SO	Soil Matrix Spike	BL-SO36(0-3)-061213
MC21734-5	06/12/13	11:10 CF	06/13/13	SO	Soil	BL-SO40(0-3)-061213
MC21734-6	06/12/13	11:15 CF	06/13/13	SO	Soil	BL-SO40(0-3)-061213D
MC21734-7	06/12/13	08:30 CF	06/13/13	SO	Soil	BL-SO17(0-3)-061213
MC21734-8	06/12/13	08:35 CF	06/13/13	SO	Soil	BL-SO17(0-3)-061213D
MC21734-9	06/12/13	08:40 CF	06/13/13	SO	Soil	BL-SO18(0-3)-061213
MC21734-10	06/12/13	08:45 CF	06/13/13	SO	Soil	BL-SO19(0-3)-061213
MC21734-11	06/12/13	08:50 CF	06/13/13	SO	Soil	BL-SO20(0-3)-061213

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

**Sample Summary**

(continued)

Weston Solutions

Job No: MC21734

Beck's Lake, South Bend, IN

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID	
MC21734-12	06/12/13	08:55 CF	06/13/13	SO	Soil	BL-SO21(0-3)-061213
MC21734-13	06/12/13	09:00 CF	06/13/13	SO	Soil	BL-SO22(0-3)-061213
MC21734-14	06/12/13	09:05 CF	06/13/13	SO	Soil	BL-SO23(0-3)-061213
MC21734-15	06/12/13	09:10 CF	06/13/13	SO	Soil	BL-SO24(0-3)-061213
MC21734-16	06/12/13	09:20 CF	06/13/13	SO	Soil	BL-SO26(0-3)-061213
MC21734-17	06/12/13	09:25 CF	06/13/13	SO	Soil	BL-SO26(0-3)-061213D
MC21734-18D	06/12/13	09:30 CF	06/13/13	SO	Soil Dup/MSD	BL-SO27(0-3)-061213
MC21734-18S	06/12/13	09:30 CF	06/13/13	SO	Soil Matrix Spike	BL-SO27(0-3)-061213
MC21734-19	06/12/13	09:35 CF	06/13/13	SO	Soil	BL-SO28(0-3)-061213
MC21734-20	06/12/13	09:40 CF	06/13/13	SO	Soil	BL-SO29(0-3)-061213
MC21734-21	06/12/13	09:45 CF	06/13/13	SO	Soil	BL-SO30(0-3)-061213
MC21734-22	06/12/13	09:50 CF	06/13/13	SO	Soil	BL-SO31(0-3)-061213

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Summary

(continued)

Weston Solutions

Job No: MC21734

Beck's Lake, South Bend, IN

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC21734-23	06/12/13	09:55 CF	06/13/13	SO	Soil	BL-SO32(0-3)-061213
MC21734-24	06/12/13	10:00 CF	06/13/13	SO	Soil	BL-SO33(0-3)-061213

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Weston Solutions

Job No MC21734

Site: Beck's Lake, South Bend, IN

Report Date 6/25/2013 11:51:25 AM

24 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 06/12/2013 and were received at Accutest on 06/13/2013 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of MC21734. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals By Method SW846 6010C

Matrix: SO

Batch ID: MP21186

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21539-16MS, MC21539-16MSD, MC21539-16PS, MC21539-16SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.
- Matrix Spike Duplicate Recovery(s) for Antimony are outside control limits. Spike Duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike, Matrix Spike Duplicate Recovery(s) for Aluminum, Iron are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Arsenic, Cadmium are outside control limits for sample MP21186-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP21186-SD1 for Calcium, Chromium, Cobalt, Iron, Manganese, Potassium, Zinc: Serial dilution indicates possible matrix interference.

Matrix: SO

Batch ID: MP21187

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21734-18MSD, MC21734-18PS, MC21734-18SDL, MC21734-18MS were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike is not within acceptable range.
- Matrix Spike Duplicate Recovery(s) for Antimony, Calcium are outside control limits. Spike Duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike, Matrix Spike Duplicate Recovery(s) for Aluminum, Iron are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Antimony, Arsenic, Beryllium, Cadmium, Selenium, Sodium are outside control limits for sample MP21187-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP21187-S1 for Calcium: Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.
- MP21187-PS1 for Antimony: Post-digestion spike recoveries outside of control limits indicate possible matrix interference.
- MP21187-SD1 for Lead, Potassium, Zinc: Serial dilution indicates possible matrix interference.

Metals By Method SW846 7471B

Matrix: SO

Batch ID: MP21192

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21631-13MS, MC21631-13MSD were used as the QC samples for metals.

Matrix: SO

Batch ID: MP21212

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21734-18MS, MC21734-18MSD were used as the QC samples for metals.
- Matrix Spike Duplicate Recovery(s) for Mercury are outside control limits. Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.

Matrix: SO

Batch ID: MP21224

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21755-3MS, MC21755-3MSD were used as the QC samples for metals.

Wet Chemistry By Method ASTM D1498-76M

Matrix: SO

Batch ID: GN43250

- Sample(s) MC21734-4DUP were used as the QC samples for Redox Potential Vs H₂.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix: SO

Batch ID: GN43265

- Sample(s) MC21734-4DUP were used as the QC samples for Solids, Percent.

Matrix: SO

Batch ID: GN43266

- Sample(s) MC21734-18DUP were used as the QC samples for Solids, Percent.

Wet Chemistry By Method SW846 3060A/7196A

Matrix: SO

Batch ID: GP16205

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21734-4DUP, MC21734-4MS were used as the QC samples for Chromium, Hexavalent.
- Matrix Spike Recovery(s) for Chromium, Hexavalent are outside control limits. Insoluble spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Refer to spike blank.
- GP16205-S1 for Chromium, Hexavalent: Soluble spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Refer to spike blank.

Wet Chemistry By Method SW846 9045D

Matrix: SO

Batch ID: GN43246

- Sample(s) MC21734-4DUP were used as the QC samples for pH.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC21734).

Summary of Hits

Page 1 of 9

Job Number:

MC21734

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC21734-1	BL-SO25(0-3)-061213					
Redox Potential Vs H2	499				mv	ASTM D1498-76M
pH	6.4				su	SW846 9045D
MC21734-2	BL-SO34(0-3)-061213					
Chromium, Hexavalent	0.47		0.47		mg/kg	SW846 3060A/7196A
Redox Potential Vs H2	464				mv	ASTM D1498-76M
pH	7.2				su	SW846 9045D
MC21734-3	BL-SO35(0-3)-061213					
Chromium, Hexavalent	1.5		0.51		mg/kg	SW846 3060A/7196A
Redox Potential Vs H2	505				mv	ASTM D1498-76M
pH	7.5				su	SW846 9045D
MC21734-4	BL-SO36(0-3)-061213					
Chromium, Hexavalent	1.6		0.47		mg/kg	SW846 3060A/7196A
Redox Potential Vs H2	491				mv	ASTM D1498-76M
pH	7.0				su	SW846 9045D
MC21734-5	BL-SO40(0-3)-061213					
Redox Potential Vs H2	502				mv	ASTM D1498-76M
pH	8.0				su	SW846 9045D
MC21734-6	BL-SO40(0-3)-061213D					
Redox Potential Vs H2	463				mv	ASTM D1498-76M
pH	8.1				su	SW846 9045D
MC21734-7	BL-SO17(0-3)-061213					
Aluminum	6020	20			mg/kg	SW846 6010C
Arsenic	4.1	0.99			mg/kg	SW846 6010C
Barium	73.9	4.9			mg/kg	SW846 6010C
Cadmium	0.41	0.39			mg/kg	SW846 6010C
Calcium	2000	490			mg/kg	SW846 6010C
Chromium	13.9	0.99			mg/kg	SW846 6010C
Copper	23.6	2.5			mg/kg	SW846 6010C
Iron	9890	9.9			mg/kg	SW846 6010C
Lead	54.6	0.99			mg/kg	SW846 6010C
Magnesium	1240	490			mg/kg	SW846 6010C

Summary of Hits

Page 2 of 9

Job Number:

MC21734

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Manganese	325	1.5		mg/kg	SW846 6010C
Mercury	0.064	0.033		mg/kg	SW846 7471B
Nickel	11.2	3.9		mg/kg	SW846 6010C
Potassium	792	490		mg/kg	SW846 6010C
Vanadium	15.9	0.99		mg/kg	SW846 6010C
Zinc	67.0	2.0		mg/kg	SW846 6010C

MC21734-8 BL-SO17(0-3)-061213D

Aluminum	5460	20		mg/kg	SW846 6010C
Arsenic	3.8	1.0		mg/kg	SW846 6010C
Barium	69.7	5.0		mg/kg	SW846 6010C
Cadmium	0.42	0.40		mg/kg	SW846 6010C
Calcium	1910	500		mg/kg	SW846 6010C
Chromium	13.1	1.0		mg/kg	SW846 6010C
Copper	23.2	2.5		mg/kg	SW846 6010C
Iron	10600	10		mg/kg	SW846 6010C
Lead	56.2	1.0		mg/kg	SW846 6010C
Magnesium	1140	500		mg/kg	SW846 6010C
Manganese	303	1.5		mg/kg	SW846 6010C
Mercury	0.047	0.035		mg/kg	SW846 7471B
Nickel	11.1	4.0		mg/kg	SW846 6010C
Potassium	732	500		mg/kg	SW846 6010C
Vanadium	14.9	1.0		mg/kg	SW846 6010C
Zinc	66.8	2.0		mg/kg	SW846 6010C

MC21734-9 BL-SO18(0-3)-061213

Aluminum	6280	20		mg/kg	SW846 6010C
Arsenic	4.3	0.99		mg/kg	SW846 6010C
Barium	89.8	4.9		mg/kg	SW846 6010C
Cadmium	0.42	0.39		mg/kg	SW846 6010C
Calcium	2540	490		mg/kg	SW846 6010C
Chromium	12.4	0.99		mg/kg	SW846 6010C
Copper	24.4	2.5		mg/kg	SW846 6010C
Iron	11300	9.9		mg/kg	SW846 6010C
Lead	46.5	0.99		mg/kg	SW846 6010C
Magnesium	1330	490		mg/kg	SW846 6010C
Manganese	380	1.5		mg/kg	SW846 6010C
Mercury	0.061	0.037		mg/kg	SW846 7471B
Nickel	10.9	3.9		mg/kg	SW846 6010C
Potassium	861	490		mg/kg	SW846 6010C
Vanadium	17.1	0.99		mg/kg	SW846 6010C
Zinc	77.1	2.0		mg/kg	SW846 6010C

Summary of Hits

Page 3 of 9

Job Number:

MC21734

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC21734-10 BL-SO19(0-3)-061213

Aluminum	6330	20	mg/kg	SW846 6010C
Arsenic	5.6	0.99	mg/kg	SW846 6010C
Barium	93.0	4.9	mg/kg	SW846 6010C
Cadmium	0.78	0.39	mg/kg	SW846 6010C
Calcium	2260	490	mg/kg	SW846 6010C
Chromium	24.6	0.99	mg/kg	SW846 6010C
Cobalt	5.1	4.9	mg/kg	SW846 6010C
Copper	57.4	2.5	mg/kg	SW846 6010C
Iron	13800	9.9	mg/kg	SW846 6010C
Lead	77.2	0.99	mg/kg	SW846 6010C
Magnesium	1300	490	mg/kg	SW846 6010C
Manganese	367	1.5	mg/kg	SW846 6010C
Mercury	0.082	0.036	mg/kg	SW846 7471B
Nickel	27.3	3.9	mg/kg	SW846 6010C
Potassium	803	490	mg/kg	SW846 6010C
Vanadium	17.2	0.99	mg/kg	SW846 6010C
Zinc	135	2.0	mg/kg	SW846 6010C

MC21734-11 BL-SO20(0-3)-061213

Aluminum	6780	20	mg/kg	SW846 6010C
Arsenic	5.1	1.0	mg/kg	SW846 6010C
Barium	117	5.0	mg/kg	SW846 6010C
Beryllium	0.44	0.40	mg/kg	SW846 6010C
Cadmium	0.98	0.40	mg/kg	SW846 6010C
Calcium	3020	500	mg/kg	SW846 6010C
Chromium	20.5	1.0	mg/kg	SW846 6010C
Cobalt	5.6	5.0	mg/kg	SW846 6010C
Copper	62.2	2.5	mg/kg	SW846 6010C
Iron	12900	10	mg/kg	SW846 6010C
Lead	92.2	1.0	mg/kg	SW846 6010C
Magnesium	1470	500	mg/kg	SW846 6010C
Manganese	414	1.5	mg/kg	SW846 6010C
Mercury	0.091	0.035	mg/kg	SW846 7471B
Nickel	21.0	4.0	mg/kg	SW846 6010C
Potassium	938	500	mg/kg	SW846 6010C
Vanadium	19.7	1.0	mg/kg	SW846 6010C
Zinc	141	2.0	mg/kg	SW846 6010C

MC21734-12 BL-SO21(0-3)-061213

Aluminum	8100	20	mg/kg	SW846 6010C
Arsenic	5.3	1.0	mg/kg	SW846 6010C

Summary of Hits

Page 4 of 9

Job Number:

MC21734

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Barium		142	5.0		mg/kg	SW846 6010C
Beryllium		0.43	0.40		mg/kg	SW846 6010C
Cadmium		1.0	0.40		mg/kg	SW846 6010C
Calcium		2960	500		mg/kg	SW846 6010C
Chromium		18.3	1.0		mg/kg	SW846 6010C
Cobalt		5.8	5.0		mg/kg	SW846 6010C
Copper		38.4	2.5		mg/kg	SW846 6010C
Iron		14100	10		mg/kg	SW846 6010C
Lead		107	1.0		mg/kg	SW846 6010C
Magnesium		1710	500		mg/kg	SW846 6010C
Manganese		416	1.5		mg/kg	SW846 6010C
Mercury		0.091	0.035		mg/kg	SW846 7471B
Nickel		14.4	4.0		mg/kg	SW846 6010C
Potassium		989	500		mg/kg	SW846 6010C
Vanadium		20.1	1.0		mg/kg	SW846 6010C
Zinc		217	2.0		mg/kg	SW846 6010C

MC21734-13 BL-SO22(0-3)-061213

Aluminum	6420	20		mg/kg	SW846 6010C
Arsenic	4.5	0.99		mg/kg	SW846 6010C
Barium	99.1	5.0		mg/kg	SW846 6010C
Cadmium	0.73	0.40		mg/kg	SW846 6010C
Calcium	3590	500		mg/kg	SW846 6010C
Chromium	16.7	0.99		mg/kg	SW846 6010C
Copper	41.8	2.5		mg/kg	SW846 6010C
Iron	11000	9.9		mg/kg	SW846 6010C
Lead	76.0	0.99		mg/kg	SW846 6010C
Magnesium	1630	500		mg/kg	SW846 6010C
Manganese	336	1.5		mg/kg	SW846 6010C
Mercury	0.12	0.036		mg/kg	SW846 7471B
Nickel	15.2	4.0		mg/kg	SW846 6010C
Potassium	842	500		mg/kg	SW846 6010C
Vanadium	17.3	0.99		mg/kg	SW846 6010C
Zinc	118	2.0		mg/kg	SW846 6010C

MC21734-14 BL-SO23(0-3)-061213

Aluminum	6940	20		mg/kg	SW846 6010C
Arsenic	3.8	0.99		mg/kg	SW846 6010C
Barium	87.5	5.0		mg/kg	SW846 6010C
Cadmium	0.63	0.40		mg/kg	SW846 6010C
Calcium	2630	500		mg/kg	SW846 6010C
Chromium	21.9	0.99		mg/kg	SW846 6010C
Cobalt	5.1	5.0		mg/kg	SW846 6010C

Summary of Hits

Page 5 of 9

Job Number: MC21734
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Copper		34.9	2.5		mg/kg	SW846 6010C
Iron		11700	9.9		mg/kg	SW846 6010C
Lead		117	0.99		mg/kg	SW846 6010C
Magnesium		2390	500		mg/kg	SW846 6010C
Manganese		269	1.5		mg/kg	SW846 6010C
Mercury		0.22	0.034		mg/kg	SW846 7471B
Nickel		15.2	4.0		mg/kg	SW846 6010C
Potassium		911	500		mg/kg	SW846 6010C
Vanadium		17.7	0.99		mg/kg	SW846 6010C
Zinc		143	2.0		mg/kg	SW846 6010C

MC21734-15 BL-SO24(0-3)-061213

Aluminum		5910	21		mg/kg	SW846 6010C
Arsenic		4.3	1.0		mg/kg	SW846 6010C
Barium		80.1	5.1		mg/kg	SW846 6010C
Cadmium		0.42	0.41		mg/kg	SW846 6010C
Calcium		3080	510		mg/kg	SW846 6010C
Chromium		11.1	1.0		mg/kg	SW846 6010C
Copper		18.1	2.6		mg/kg	SW846 6010C
Iron		10700	10		mg/kg	SW846 6010C
Lead		61.7	1.0		mg/kg	SW846 6010C
Magnesium		1650	510		mg/kg	SW846 6010C
Manganese		309	1.5		mg/kg	SW846 6010C
Mercury		0.060	0.033		mg/kg	SW846 7471B
Nickel		9.1	4.1		mg/kg	SW846 6010C
Potassium		840	510		mg/kg	SW846 6010C
Vanadium		16.3	1.0		mg/kg	SW846 6010C
Zinc		88.3	2.1		mg/kg	SW846 6010C

MC21734-16 BL-SO26(0-3)-061213

Aluminum		4050	20		mg/kg	SW846 6010C
Antimony		1.2	1.0		mg/kg	SW846 6010C
Arsenic		7.7	1.0		mg/kg	SW846 6010C
Barium		72.9	5.0		mg/kg	SW846 6010C
Cadmium		1.1	0.40		mg/kg	SW846 6010C
Calcium		5040	500		mg/kg	SW846 6010C
Chromium		15.3	1.0		mg/kg	SW846 6010C
Copper		30.3	2.5		mg/kg	SW846 6010C
Iron		12500	10		mg/kg	SW846 6010C
Lead		151	1.0		mg/kg	SW846 6010C
Magnesium		1360	500		mg/kg	SW846 6010C
Manganese		199	1.5		mg/kg	SW846 6010C
Mercury		0.096	0.038		mg/kg	SW846 7471B

Summary of Hits

Page 6 of 9

Job Number: MC21734
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/12/13

3

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

Nickel	8.6	4.0		mg/kg	SW846 6010C
Potassium	754	500		mg/kg	SW846 6010C
Vanadium	13.0	1.0		mg/kg	SW846 6010C
Zinc	144	2.0		mg/kg	SW846 6010C

MC21734-17 BL-SO26(0-3)-061213D

Aluminum	4040	20		mg/kg	SW846 6010C
Arsenic	7.5	1.0		mg/kg	SW846 6010C
Barium	71.2	5.0		mg/kg	SW846 6010C
Cadmium	1.1	0.40		mg/kg	SW846 6010C
Calcium	4800	500		mg/kg	SW846 6010C
Chromium	14.7	1.0		mg/kg	SW846 6010C
Copper	29.6	2.5		mg/kg	SW846 6010C
Iron	12300	10		mg/kg	SW846 6010C
Lead	144	1.0		mg/kg	SW846 6010C
Magnesium	1310	500		mg/kg	SW846 6010C
Manganese	193	1.5		mg/kg	SW846 6010C
Mercury	0.12	0.039		mg/kg	SW846 7471B
Nickel	8.2	4.0		mg/kg	SW846 6010C
Potassium	744	500		mg/kg	SW846 6010C
Vanadium	13.4	1.0		mg/kg	SW846 6010C
Zinc	144	2.0		mg/kg	SW846 6010C

MC21734-18 BL-SO27(0-3)-061213

Aluminum	6030	20		mg/kg	SW846 6010C
Arsenic	5.7	1.0		mg/kg	SW846 6010C
Barium	74.5	5.0		mg/kg	SW846 6010C
Cadmium	0.49	0.40		mg/kg	SW846 6010C
Calcium	6300	500		mg/kg	SW846 6010C
Chromium	11.1	1.0		mg/kg	SW846 6010C
Copper	16.0	2.5		mg/kg	SW846 6010C
Iron	10400	10		mg/kg	SW846 6010C
Lead	46.6	1.0		mg/kg	SW846 6010C
Magnesium	1640	500		mg/kg	SW846 6010C
Manganese	388	1.5		mg/kg	SW846 6010C
Mercury	0.089	0.037		mg/kg	SW846 7471B
Nickel	8.5	4.0		mg/kg	SW846 6010C
Potassium	1000	500		mg/kg	SW846 6010C
Vanadium	15.6	1.0		mg/kg	SW846 6010C
Zinc	65.8	2.0		mg/kg	SW846 6010C

Summary of Hits

Page 7 of 9

Job Number:

MC21734

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC21734-19 BL-SO28(0-3)-061213

Aluminum	5050	20	mg/kg	SW846 6010C
Antimony	1.2	0.99	mg/kg	SW846 6010C
Arsenic	7.1	0.99	mg/kg	SW846 6010C
Barium	64.6	5.0	mg/kg	SW846 6010C
Cadmium	0.70	0.40	mg/kg	SW846 6010C
Calcium	5640	500	mg/kg	SW846 6010C
Chromium	14.3	0.99	mg/kg	SW846 6010C
Copper	23.2	2.5	mg/kg	SW846 6010C
Iron	10800	9.9	mg/kg	SW846 6010C
Lead	78.2	0.99	mg/kg	SW846 6010C
Magnesium	1770	500	mg/kg	SW846 6010C
Manganese	280	1.5	mg/kg	SW846 6010C
Mercury	0.084	0.038	mg/kg	SW846 7471B
Nickel	8.8	4.0	mg/kg	SW846 6010C
Potassium	885	500	mg/kg	SW846 6010C
Vanadium	14.6	0.99	mg/kg	SW846 6010C
Zinc	93.8	2.0	mg/kg	SW846 6010C

MC21734-20 BL-SO29(0-3)-061213

Aluminum	7100	20	mg/kg	SW846 6010C
Arsenic	5.9	0.98	mg/kg	SW846 6010C
Barium	86.9	4.9	mg/kg	SW846 6010C
Cadmium	0.44	0.39	mg/kg	SW846 6010C
Calcium	4170	490	mg/kg	SW846 6010C
Chromium	12.2	0.98	mg/kg	SW846 6010C
Cobalt	5.0	4.9	mg/kg	SW846 6010C
Copper	14.8	2.4	mg/kg	SW846 6010C
Iron	10200	9.8	mg/kg	SW846 6010C
Lead	31.4	0.98	mg/kg	SW846 6010C
Magnesium	1820	490	mg/kg	SW846 6010C
Manganese	487	1.5	mg/kg	SW846 6010C
Mercury	0.057	0.036	mg/kg	SW846 7471B
Nickel	9.7	3.9	mg/kg	SW846 6010C
Potassium	1230	490	mg/kg	SW846 6010C
Vanadium	18.2	0.98	mg/kg	SW846 6010C
Zinc	63.0	2.0	mg/kg	SW846 6010C

MC21734-21 BL-SO30(0-3)-061213

Aluminum	5960	20	mg/kg	SW846 6010C
Arsenic	6.4	1.0	mg/kg	SW846 6010C
Barium	82.1	5.0	mg/kg	SW846 6010C

Summary of Hits

Page 8 of 9

Job Number:

MC21734

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Cadmium		0.63	0.40		mg/kg	SW846 6010C
Calcium		6320	500		mg/kg	SW846 6010C
Chromium		12.8	1.0		mg/kg	SW846 6010C
Copper		22.2	2.5		mg/kg	SW846 6010C
Iron		10500	10		mg/kg	SW846 6010C
Lead		56.6	1.0		mg/kg	SW846 6010C
Magnesium		1780	500		mg/kg	SW846 6010C
Manganese		354	1.5		mg/kg	SW846 6010C
Mercury		0.11	0.036		mg/kg	SW846 7471B
Nickel		9.4	4.0		mg/kg	SW846 6010C
Potassium		960	500		mg/kg	SW846 6010C
Vanadium		16.0	1.0		mg/kg	SW846 6010C
Zinc		85.3	2.0		mg/kg	SW846 6010C

MC21734-22 BL-SO31(0-3)-061213

Aluminum	7620	20		mg/kg	SW846 6010C
Arsenic	6.3	0.99		mg/kg	SW846 6010C
Barium	96.2	4.9		mg/kg	SW846 6010C
Beryllium	0.39	0.39		mg/kg	SW846 6010C
Cadmium	0.42	0.39		mg/kg	SW846 6010C
Calcium	5570	490		mg/kg	SW846 6010C
Chromium	12.2	0.99		mg/kg	SW846 6010C
Cobalt	5.2	4.9		mg/kg	SW846 6010C
Copper	14.3	2.5		mg/kg	SW846 6010C
Iron	10600	9.9		mg/kg	SW846 6010C
Lead	24.2	0.99		mg/kg	SW846 6010C
Magnesium	1920	490		mg/kg	SW846 6010C
Manganese	552	1.5		mg/kg	SW846 6010C
Mercury	0.061	0.037		mg/kg	SW846 7471B
Nickel	10.3	3.9		mg/kg	SW846 6010C
Potassium	1080	490		mg/kg	SW846 6010C
Vanadium	19.2	0.99		mg/kg	SW846 6010C
Zinc	58.4	2.0		mg/kg	SW846 6010C

MC21734-23 BL-SO32(0-3)-061213

Aluminum	4780	20		mg/kg	SW846 6010C
Arsenic	8.5	1.0		mg/kg	SW846 6010C
Barium	77.7	5.1		mg/kg	SW846 6010C
Cadmium	0.59	0.41		mg/kg	SW846 6010C
Calcium	19400	510		mg/kg	SW846 6010C
Chromium	10.9	1.0		mg/kg	SW846 6010C
Copper	19.1	2.5		mg/kg	SW846 6010C
Iron	11700	10		mg/kg	SW846 6010C

Summary of Hits

Page 9 of 9

Job Number:

MC21734

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Lead		45.8	1.0		mg/kg	SW846 6010C
Magnesium		2290	510		mg/kg	SW846 6010C
Manganese		382	1.5		mg/kg	SW846 6010C
Mercury		0.065	0.039		mg/kg	SW846 7471B
Nickel		7.7	4.1		mg/kg	SW846 6010C
Potassium		823	510		mg/kg	SW846 6010C
Vanadium		12.6	1.0		mg/kg	SW846 6010C
Zinc		66.5	2.0		mg/kg	SW846 6010C

MC21734-24 BL-SO33(0-3)-061213

Aluminum	6290	20		mg/kg	SW846 6010C
Arsenic	6.3	1.0		mg/kg	SW846 6010C
Barium	79.5	5.0		mg/kg	SW846 6010C
Calcium	10300	500		mg/kg	SW846 6010C
Chromium	10.4	1.0		mg/kg	SW846 6010C
Copper	12.7	2.5		mg/kg	SW846 6010C
Iron	9770	10		mg/kg	SW846 6010C
Lead	25.3	1.0		mg/kg	SW846 6010C
Magnesium	1940	500		mg/kg	SW846 6010C
Manganese	428	1.5		mg/kg	SW846 6010C
Mercury	0.044	0.037		mg/kg	SW846 7471B
Nickel	8.9	4.0		mg/kg	SW846 6010C
Potassium	962	500		mg/kg	SW846 6010C
Vanadium	16.4	1.0		mg/kg	SW846 6010C
Zinc	52.8	2.0		mg/kg	SW846 6010C



4

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO25(0-3)-061213**Lab Sample ID:** MC21734-1**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 89.4**Project:** Beck's Lake, South Bend, IN**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.44	0.44	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	499		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	89.4		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	6.4		su	1	06/13/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO34(0-3)-061213**Lab Sample ID:** MC21734-2**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 84.2**Project:** Beck's Lake, South Bend, IN**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	0.47	0.47	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	464		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	84.2		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	7.2		su	1	06/13/13	MA	SW846 9045D

RL = Reporting Limit

4.2

4

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO35(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-3	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	77.0
Project:	Beck's Lake, South Bend, IN		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.5	0.51	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	505		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	77		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	7.5		su	1	06/13/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO36(0-3)-061213**Lab Sample ID:** MC21734-4**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 82.7**Project:** Beck's Lake, South Bend, IN**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.6	0.47	mg/kg	1	06/17/13 16:55	CF	SW846 3060A/7196A
Redox Potential Vs H2	491		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	82.7		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	7.0		su	1	06/13/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO40(0-3)-061213**Lab Sample ID:** MC21734-5**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 92.0**Project:** Beck's Lake, South Bend, IN**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.43	0.43	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	502		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	92		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	8.0		su	1	06/13/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO40(0-3)-061213D**Lab Sample ID:** MC21734-6**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 93.4**Project:** Beck's Lake, South Bend, IN**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.42	0.42	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	463		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	93.4		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	8.1		su	1	06/13/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO17(0-3)-061213**Lab Sample ID:** MC21734-7**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 88.9**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6020	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	4.1	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	73.9	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.41	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2000	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	13.9	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 4.9	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	23.6	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	9890	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	54.6	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1240	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	325	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.064	0.033	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ¹
Nickel	11.2	3.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	792	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.49	0.49	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 490	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	15.9	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	67.0	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15755

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO17(0-3)-061213D**Lab Sample ID:** MC21734-8**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 90.0**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5460	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	3.8	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	69.7	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.42	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	1910	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	13.1	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	23.2	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	10600	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	56.2	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1140	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	303	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.047	0.035	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ¹
Nickel	11.1	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	732	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	14.9	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	66.8	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15755

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO18(0-3)-061213**Lab Sample ID:** MC21734-9**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 87.5**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6280	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	4.3	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	89.8	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.42	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2540	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	12.4	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 4.9	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	24.4	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	11300	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	46.5	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1330	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	380	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.061	0.037	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ¹
Nickel	10.9	3.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	861	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.49	0.49	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 490	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	17.1	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	77.1	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15755

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21192

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO19(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-10	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	88.9
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6330	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	5.6	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	93.0	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.78	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2260	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	24.6	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	5.1	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	57.4	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	13800	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	77.2	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1300	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	367	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.082	0.036	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ¹
Nickel	27.3	3.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	803	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.49	0.49	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 490	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	17.2	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	135	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15755

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21192

RL = Reporting Limit

4.10

4

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO20(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-11	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	86.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6780	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	5.1	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	117	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	0.44	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.98	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	3020	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	20.5	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	5.6	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	62.2	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	12900	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	92.2	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1470	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	414	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.091	0.035	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	21.0	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	938	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	19.7	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	141	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO21(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-12	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	88.7
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	8100	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	5.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	142	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	0.43	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	1.0	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2960	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	18.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	5.8	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	38.4	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	14100	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	107	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1710	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	416	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.091	0.035	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	14.4	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	989	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	20.1	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	217	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO22(0-3)-061213**Lab Sample ID:** MC21734-13**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 88.6**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6420	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	4.5	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	99.1	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.73	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	3590	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	16.7	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	41.8	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	11000	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	76.0	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1630	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	336	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.12	0.036	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	15.2	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	842	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	17.3	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	118	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO23(0-3)-061213**Lab Sample ID:** MC21734-14**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 91.8**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6940	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	3.8	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	87.5	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.63	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2630	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	21.9	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	5.1	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	34.9	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	11700	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	117	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	2390	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	269	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.22	0.034	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	15.2	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	911	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	17.7	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	143	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

RL = Reporting Limit

4.14

4

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO24(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-15	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	92.5
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5910	21	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	4.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	80.1	5.1	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.41	0.41	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.42	0.41	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	3080	510	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	11.1	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 5.1	5.1	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	18.1	2.6	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	10700	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	61.7	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1650	510	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	309	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.060	0.033	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	9.1	4.1	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	840	510	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.51	0.51	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 510	510	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	16.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	88.3	2.1	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

RL = Reporting Limit

4.15
4

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO26(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-16	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	83.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4050	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	1.2	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	7.7	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	72.9	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	1.1	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	5040	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	15.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	30.3	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	12500	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	151	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1360	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	199	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.096	0.038	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	8.6	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	754	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	13.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	144	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO26(0-3)-061213D**Lab Sample ID:** MC21734-17**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 81.8**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4040	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	7.5	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	71.2	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	1.1	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	4800	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	14.7	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	29.6	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	12300	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	144	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1310	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	193	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.12	0.039	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	8.2	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	744	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	13.4	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	144	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO27(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-18	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	82.7
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6030	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	5.7	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	74.5	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.49	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	6300	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	11.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	16.0	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10400	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	46.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1640	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	388	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.089	0.037	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²
Nickel	8.5	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1000	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	15.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	65.8	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15768

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21212

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO28(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-19	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	83.1
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5050	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	1.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	7.1	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	64.6	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.70	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	5640	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	14.3	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	23.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10800	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	78.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1770	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	280	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.084	0.038	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²
Nickel	8.8	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	885	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	14.6	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	93.8	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15768

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21212

RL = Reporting Limit

4.19

4

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO29(0-3)-061213**Lab Sample ID:** MC21734-20**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 83.2**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7100	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.98	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	5.9	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	86.9	4.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.39	0.39	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.44	0.39	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	4170	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.2	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.0	4.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	14.8	2.4	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10200	9.8	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	31.4	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1820	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	487	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.057	0.036	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²
Nickel	9.7	3.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1230	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.98	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.49	0.49	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 490	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.98	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	18.2	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	63.0	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15768

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21212

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO30(0-3)-061213**Lab Sample ID:** MC21734-21**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 81.6**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5960	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	6.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	82.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.63	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	6320	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.8	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	22.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10500	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	56.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1780	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	354	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.11	0.036	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²
Nickel	9.4	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	960	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	16.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	85.3	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15768

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21212

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO31(0-3)-061213**Lab Sample ID:** MC21734-22**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 82.4**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7620	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	6.3	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	96.2	4.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.39	0.39	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.42	0.39	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	5570	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.2	4.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	14.3	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10600	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	24.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1920	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	552	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.061	0.037	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²
Nickel	10.3	3.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1080	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.49	0.49	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 490	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	19.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	58.4	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15768

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21212

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO32(0-3)-061213**Lab Sample ID:** MC21734-23**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 81.5**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4780	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.5	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	77.7	5.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.41	0.41	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.59	0.41	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	19400	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	10.9	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.1	5.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	19.1	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	11700	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	45.8	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2290	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	382	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.065	0.039	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	7.7	4.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	823	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.51	0.51	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 510	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	12.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	66.5	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO33(0-3)-061213**Lab Sample ID:** MC21734-24**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 82.1**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6290	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	6.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	79.5	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	10300	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	10.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	12.7	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	9770	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	25.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1940	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	428	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.044	0.037	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	8.9	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	962	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	16.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	52.8	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit



Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 2

FED-EX Tracking #	Bottle Order Control #
Accutest Job #	
MC2178434	

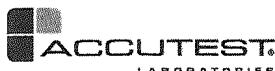
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OIL - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
RB - Rinse Blank
TB - Trip Blank

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)						Matrix Codes							
Company Name WESTON SOLUTIONS	Project Name BECK'S LAKE SA																								
Street Address 20 N. WACKER	Street:																								
City State Zip CHICAGO IL 60606	City: SOUTH BEND, IN	Billing Information (If different from Report to)																							
Project Contact KRISTA RICHARDSON	E-mail 847-918-1066	Project#	Company Name									Street Address													
Phone # 847-918-1066	Fax #	Client PO#	City									State	Zip												
Sampler(s) Name(s) BRYNARSKY & FORD	Phone #	Project Manager	Attention:									PO#													
Accutest Sample #	Field ID / Point of Collection	Collection			Sampled by	Matrix	Number of preserved Bottles						Chromatogram (CTE)	TEST METALS											
		Date	Time	# of bottles			HCl	NaOH	HNO3	H2SO4	None	DH Water			MEOH	ENCRUT	Salts								
-1	BL-SO25(0-3)-061213	06/21/13	09:35	CF	S	1		X													LAB USE ONLY				
-2	BL-SO34(0-3)-061213		11:05																						
-3	BL-SO35(0-3)-061213		11:30																						
-4	BL-SO36(0-3)-061213		11:35																						
-5	BL-SO40(0-3)-061213		11:40																						
-6	BL-SO41(0-3)-061213		11:45																						
-7	BL-SO17(0-3)-061213		08:30																						
-8	BL-SO17(0-3)-061213		08:35																						
-9	BL-SO18(0-3)-061213		08:40																						
-10	BL-SO19(0-3)-061213		08:45																						
-11	BL-SO20(0-3)-061213		08:50																						
-12	BL-SO21(0-3)-061213		08:55																						
												Data Deliverable Information										Comments / Special Instructions			
Turnaround Time (Business days)		Approved By (Accutest PM): / Date:																							
<input checked="" type="checkbox"/> Std. 10 Business Days																									
<input type="checkbox"/> Std. 5 Business Days (By Contract only)																									
<input type="checkbox"/> 5 Day RUSH																									
<input type="checkbox"/> 3 Day EMERGENCY																									
<input type="checkbox"/> 2 Day EMERGENCY																									
<input type="checkbox"/> 1 Day EMERGENCY																									
Emergency & Rush T/A data available VIA Lablink																									
Sample Custody must be documented below each time samples change possession, including courier delivery.												CHICAGO IL													
Numbered by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:				
1	06/12/13 09:50	FX	2	7:30		3	6/13/13		4	7:30		5	6/13/13		6	7:30		7	7:30		8	7:30			
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:				
3																									
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact	Preserved where applicable	On Ics	Cooler Temp.																		
5																									

5.1

MC21734: Chain of Custody

Page 1 of 3



CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 2 OF 2

Client / Reporting Information		Project Information														
Company Name WESTON SOLUTIONS Street Address 20 N. Wacker City State Zip CHICAGO, IL 60606 Project Contact KELSTRA RICARDSON Phone # 847-918-4066 Fax #		Project Name BECK'S LAKE SA Street: South Bend, IN Billing Information (If different from Report to) Company Name Project# Client PO# City State Zip Sampler(s) Name(s) BRYNNA KELSTRA & FORD Phone # Project Manager Attention: PO#														
		TEST CODE TEL MISTRESS														
Assessed Sample #	Field ID / Point of Collection	Collection			Number of preserved Bottles							LAB USE ONLY				
		Date	Time	Sampled by	Matrix	# of bottles	HCl	NH3	HNO3	H2SO4	None		D/Water	MECH	ENCORE	Barium
-13	BL-SO22(0-3)-061213	06/12/13 09:00	CF	5	1					X						
-14	BL-SO22(0-3)-061213			09:05						X						
-15	BL-SO24(0-3)-061213			09:10						X						
-16	BL-SO26(0-3)-061213			09:20						X						
-17	BL-SO26(0-3)-061213			09:25						X						
-18	BL-SO27(0-3)-061213			09:30						X						
-19	BL-SO28(0-3)-061213			09:35						X						
-20	BL-SO29(0-3)-061213			09:40						X						
-21	BL-SO30(0-3)-061213			09:45						X						
-22	BL-SO31(0-3)-061213			09:50						X						
-23	BL-SO32(0-3)-061213			09:55						X						
-24	BL-SO33(0-3)-061213			10:00	▼	▼	▼			X						
Data Deliverable Information													Comments / Special Instructions			
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				Approved By (Accutest PM) / Date: _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input checked="" type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULL1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____				Commercial "A" = Results Only Commercial "B" = Results + QC Summary				
Sample Custody must be documented below each time samples change possession, including courier delivery.													CHICAGO SC			
Relinquished by Sampler: 1		Date Time:	Received By:	FX		Relinquished By:	2		FX		Date Time:	Received By:	3			
Relinquished by Sampler: 3		Date Time:	Received By:			Relinquished By:					Date Time:	Received By:				
Relinquished by: 5		Date Time:	Received By:			Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable			On Ice	Cooler Temp.				
							<input type="checkbox"/> Not intact									

MC21734: Chain of Custody

Page 2 of 3



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC21734

Client: WESTON SOLUTIONS

Immediate Client Services Action Required: No

Date / Time Received: 6/13/2013

Delivery Method:

Client Service Action Required at Login: No

Project: BECKS LAKE SA

No. Coolers: 1

Airbill #'s:

Cooler SecurityY or NY or N

1. Custody Seals Present: 3. COC Present:
2. Custody Seals Intact: 4. Smpl Dates/Time OK

Cooler TemperatureY or N

1. Temp criteria achieved:
2. Cooler temp verification: Infared gun
3. Cooler media: Ice (bag)

Quality Control PreservationY or N

N/A

1. Trip Blank present / cooler:
2. Trip Blank listed on COC:
3. Samples preserved properly:
4. VOCs headspace free:

Sample Integrity - DocumentationY or N

1. Sample labels present on bottles:
2. Container labeling complete:
3. Sample container label / COC agree:

Sample Integrity - ConditionY or N

1. Sample recvd within HT:
2. All containers accounted for:
3. Condition of sample: Intact

Sample Integrity - InstructionsY or N

N/A

1. Analysis requested is clear:
2. Bottles received for unspecified tests:
3. Sufficient volume recvd for analysis:
4. Compositing instructions clear:
5. Filtering instructions clear:

Comments

Accutest Laboratories
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www.accutest.com**MC21734: Chain of Custody****Page 3 of 3**

5.1



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

06/17/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	1.2	3.6	0.64	<20
Antimony	1.0	.11	.15	0.11	<1.0
Arsenic	1.0	.17	.21	0.020	<1.0
Barium	5.0	.032	.073	0.17	<5.0
Beryllium	0.40	.01	.024	0.040	<0.40
Boron	10	.11	.11		
Cadmium	0.40	.025	.042	0.020	<0.40
Calcium	500	2.1	6.3	6.1	<500
Chromium	1.0	.048	.095	0.040	<1.0
Cobalt	5.0	.029	.047	0.010	<5.0
Copper	2.5	.093	.56	0.020	<2.5
Gold	5.0	.15	.43		
Iron	10	.35	.87	4.3	<10
Lead	1.0	.12	.17	-0.010	<1.0
Magnesium	500	3	5.1	3.7	<500
Manganese	1.5	.016	.04	0.10	<1.5
Molybdenum	10	.031	.07		
Nickel	4.0	.045	.044	0.010	<4.0
Palladium	5.0	.22	.64		
Platinum	5.0	.64	1.5		
Potassium	500	5.4	8.6	15.1	<500
Selenium	1.0	.17	.35	-0.020	<1.0
Silicon	10	.2	3.3		
Silver	0.50	.081	.13	0.010	<0.50
Sodium	500	1.6	3.3	-2.2	<500
Strontium	1.0	.012	.03		
Thallium	1.0	.12	.13	-0.16	<1.0
Tin	10	.087	.14		
Titanium	5.0	.066	.14		
Tungsten	10	.93	.94		
Vanadium	1.0	.082	.13	0.040	<1.0
Zinc	2.0	.045	.16	0.32	<2.0
Zirconium	5.0	.045	.088		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21186: MC21734-7, MC21734-8, MC21734-9, MC21734-10, MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 06/17/13

Metal	MC21539-16 Original MS	Spikelot MPICP	% Rec	QC Limits
Aluminum	11900	12400	201	248.9(a) 75-125
Antimony	0.0	20.6	50.2	41.0 (b) 75-125
Arsenic	3.3	46.9	50.2	86.8 75-125
Barium	34.7	209	201	86.8 75-125
Beryllium	0.51	42.6	50.2	83.8 75-125
Boron				
Cadmium	0.040	44.8	50.2	89.1 75-125
Calcium	506	2650	2510	85.4 75-125
Chromium	22.3	67.0	50.2	89.0 75-125
Cobalt	7.8	52.6	50.2	89.2 75-125
Copper	13.2	53.2	50.2	79.7 75-125
Gold				
Iron	19300	19600	201	149.4(a) 75-125
Lead	7.1	90.5	100	83.0 75-125
Magnesium	3460	5540	2510	82.8 75-125
Manganese	113	171	50.2	115.5 75-125
Molybdenum				
Nickel	13.6	55.4	50.2	83.2 75-125
Palladium				
Platinum				
Potassium	1790	4080	2510	91.2 75-125
Selenium	0.0	42.2	50.2	84.0 75-125
Silicon				
Silver	0.0	16.8	20.1	83.6 75-125
Sodium	210	2270	2510	82.0 75-125
Strontium				
Thallium	0.0	43.0	50.2	85.6 75-125
Tin				
Titanium				
Tungsten				
Vanadium	30.4	75.0	50.2	88.8 75-125
Zinc	31.4	75.6	50.2	88.0 75-125
Zirconium				

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21186: MC21734-7, MC21734-8, MC21734-9, MC21734-10, MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
 - (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
 - (b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/17/13

Metal	MC21539-16 Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum	11900	12900	201	497.8(a)	4.0	20
Antimony	0.0	21.9	50.2	43.6 (b)	6.1	20
Arsenic	3.3	47.1	50.2	87.2	0.4	20
Barium	34.7	209	201	86.8	0.0	20
Beryllium	0.51	43.6	50.2	85.8	2.3	20
Boron						
Cadmium	0.040	45.3	50.2	90.1	1.1	20
Calcium	506	2660	2510	85.8	0.4	20
Chromium	22.3	68.6	50.2	92.2	2.4	20
Cobalt	7.8	52.7	50.2	89.4	0.2	20
Copper	13.2	53.2	50.2	79.7	0.0	20
Gold						
Iron	19300	19700	201	199.1(a)	0.5	20
Lead	7.1	91.5	100	84.0	1.1	20
Magnesium	3460	5640	2510	86.8	1.8	20
Manganese	113	160	50.2	93.6	6.6	20
Molybdenum						
Nickel	13.6	55.5	50.2	83.4	0.2	20
Palladium						
Platinum						
Potassium	1790	4060	2510	90.4	0.5	20
Selenium	0.0	42.4	50.2	84.4	0.5	20
Silicon						
Silver	0.0	17.3	20.1	86.1	2.9	20
Sodium	210	2330	2510	84.4	2.6	20
Strontium						
Thallium	0.0	43.7	50.2	87.0	1.6	20
Tin						
Titanium						
Tungsten						
Vanadium	30.4	76.0	50.2	90.8	1.3	20
Zinc	31.4	76.4	50.2	89.6	1.1	20
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21186: MC21734-7, MC21734-8, MC21734-9, MC21734-10, MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/17/13

06/17/13

Metal	BSP Result	Spikelot MPICP	QC % Rec	QC Limits	BSD Result	Spikelot MPICP	BSD % Rec	BSD RPD	QC Limit
Aluminum	195	200	97.5	80-120	192	200	96.0	1.6	20
Antimony	48.7	50	97.4	80-120	48.1	50	96.2	1.2	20
Arsenic	49.2	50	98.4	80-120	48.7	50	97.4	1.0	20
Barium	189	200	94.5	80-120	189	200	94.5	0.0	20
Beryllium	47.3	50	94.6	80-120	47.1	50	94.2	0.4	20
Boron									
Cadmium	49.9	50	99.8	80-120	49.2	50	98.4	1.4	20
Calcium	2330	2500	93.2	80-120	2320	2500	92.8	0.4	20
Chromium	49.7	50	99.4	80-120	49.4	50	98.8	0.6	20
Cobalt	50.2	50	100.4	80-120	49.5	50	99.0	1.4	20
Copper	43.6	50	87.2	80-120	43.3	50	86.6	0.7	20
Gold									
Iron	203	200	101.5	80-120	197	200	98.5	3.0	20
Lead	94.6	100	94.6	80-120	93.6	100	93.6	1.1	20
Magnesium	2330	2500	93.2	80-120	2320	2500	92.8	0.4	20
Manganese	45.4	50	90.8	80-120	45.0	50	90.0	0.9	20
Molybdenum									
Nickel	46.8	50	93.6	80-120	46.3	50	92.6	1.1	20
Palladium									
Platinum									
Potassium	2400	2500	96.0	80-120	2410	2500	96.4	0.4	20
Selenium	48.6	50	97.2	80-120	48.1	50	96.2	1.0	20
Silicon									
Silver	18.9	20	94.5	80-120	18.8	20	94.0	0.5	20
Sodium	2300	2500	92.0	80-120	2290	2500	91.6	0.4	20
Strontium									
Thallium	49.6	50	99.2	80-120	48.8	50	97.6	1.6	20
Tin									
Titanium									
Tungsten									
Vanadium	48.7	50	97.4	80-120	48.7	50	97.4	0.0	20
Zinc	50.7	50	101.4	80-120	50.1	50	100.2	1.2	20
Zirconium									

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21186: MC21734-7, MC21734-8, MC21734-9, MC21734-10, MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/17/13

Metal	LCS Result	Spikelot MPLCS80	% Rec	QC Limits
Aluminum	8540	8840	96.6	54-146
Antimony	83.2	88.2	94.3	11-231
Arsenic	105	99.6	105.4	81-119
Barium	317	310	102.3	83-117
Beryllium	71.6	72.3	99.0	82-118
Boron				
Cadmium	189	182	103.8	82-118
Calcium	6600	6790	97.2	83-118
Chromium	139	136	102.2	80-121
Cobalt	132	128	103.1	83-116
Copper	93.6	102	91.8	81-119
Gold				
Iron	12800	12600	101.6	41-158
Lead	116	115	100.9	82-119
Magnesium	2980	3010	99.0	77-123
Manganese	314	323	97.2	82-117
Molybdenum				
Nickel	150	153	98.0	82-118
Palladium				
Platinum				
Potassium	2920	2840	102.8	71-129
Selenium	157	150	104.7	77-123
Silicon				
Silver	41.8	40.4	103.5	75-125
Sodium	2740	2760	99.3	71-129
Strontium				
Thallium	188	174	108.0	79-122
Tin				
Titanium				
Tungsten				
Vanadium	96.4	97.6	98.8	77-123
Zinc	160	161	99.4	81-119
Zirconium				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21186: MC21734-7, MC21734-8, MC21734-9, MC21734-10, MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 06/17/13

Metal	MC21539-16			QC Limits
	Original	SDL 1:5	%DIF	
Aluminum	120000	131000	9.7	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	33.6	38.4	14.3 (a)	0-10
Barium	349	381	9.4	0-10
Beryllium	5.10	5.30	3.9	0-10
Boron				
Cadmium	0.400	0.00	100.0(a)	0-10
Calcium	5080	5620	10.5 (b)	0-10
Chromium	224	248	10.5 (b)	0-10
Cobalt	78.4	86.3	10.1 (b)	0-10
Copper	132	141	6.4	0-10
Gold				
Iron	194000	214000	10.2 (b)	0-10
Lead	71.0	76.3	7.5	0-10
Magnesium	34800	37700	8.3	0-10
Manganese	1130	1260	11.0 (b)	0-10
Molybdenum				
Nickel	137	150	9.7	0-10
Palladium				
Platinum				
Potassium	18000	20500	13.9 (b)	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	2110	1950	7.3	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	306	336	9.9	0-10
Zinc	316	356	12.6 (b)	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21186: MC21734-7, MC21734-8, MC21734-9, MC21734-10, MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (anr) Analyte not requested
- (a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- (b) Serial dilution indicates possible matrix interference.

6.1.4
6

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

06/17/13

Metal	Sample ml	Final ml	MC21539-16 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
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Aluminum

Antimony	10	10.1	0	0	17.4	.1	2	19.80198	87.9	80-120
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Arsenic

Barium

Beryllium

Boron

Cadmium

Calcium

Chromium

Cobalt

Copper

Gold

Iron

Lead

Magnesium

Manganese

Molybdenum

Nickel

Palladium

Platinum

Potassium

Selenium

Silicon

Silver

Sodium

Strontium

Thallium

Tin

Titanium

Tungsten

Vanadium

Zinc

Zirconium

6.1.5

6

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21186
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21186: MC21734-7, MC21734-8, MC21734-9, MC21734-10, MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

6.1.5
6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 06/17/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	1.2	3.6	-1.1	<20
Antimony	1.0	.11	.15	0.22	<1.0
Arsenic	1.0	.17	.21	0.060	<1.0
Barium	5.0	.032	.073	0.11	<5.0
Beryllium	0.40	.01	.024	0.040	<0.40
Boron	10	.11	.11		
Cadmium	0.40	.025	.042	0.030	<0.40
Calcium	500	2.1	6.3	7.2	<500
Chromium	1.0	.048	.095	0.0	<1.0
Cobalt	5.0	.029	.047	0.010	<5.0
Copper	2.5	.093	.56	0.14	<2.5
Gold	5.0	.15	.43		
Iron	10	.35	.87	1.2	<10
Lead	1.0	.12	.17	0.030	<1.0
Magnesium	500	3	5.1	2.6	<500
Manganese	1.5	.016	.04	0.090	<1.5
Molybdenum	10	.031	.07		
Nickel	4.0	.045	.044	0.030	<4.0
Palladium	5.0	.22	.64		
Platinum	5.0	.64	1.5		
Potassium	500	5.4	8.6	26.4	<500
Selenium	1.0	.17	.35	0.060	<1.0
Silicon	10	.2	3.3		
Silver	0.50	.081	.13	-0.010	<0.50
Sodium	500	1.6	3.3	10.7	<500
Strontium	1.0	.012	.03		
Thallium	1.0	.12	.13	0.070	<1.0
Tin	10	.087	.14		
Titanium	5.0	.066	.14		
Tungsten	10	.93	.94		
Vanadium	1.0	.082	.13	0.060	<1.0
Zinc	2.0	.045	.16	0.61	<2.0
Zirconium	5.0	.045	.088		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21187: MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22, MC21734-23,
MC21734-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/17/13

Metal	MC21734-18 Original MS	Spikelot MPICP	% Rec	QC Limits
Aluminum	6030	7190	202	575.6(a) 75-125
Antimony	0.48	27.8	50.4	54.2 (b) 75-125
Arsenic	5.7	52.3	50.4	92.5 75-125
Barium	74.5	255	202	89.6 75-125
Beryllium	0.34	45.2	50.4	89.0 75-125
Boron				
Cadmium	0.49	47.1	50.4	92.5 75-125
Calcium	6300	7470	2520	46.4 (c) 75-125
Chromium	11.1	59.3	50.4	95.7 75-125
Cobalt	4.1	51.5	50.4	94.1 75-125
Copper	16.0	64.2	50.4	95.7 75-125
Gold				
Iron	10400	11500	202	545.8(a) 75-125
Lead	46.6	139	101	91.7 75-125
Magnesium	1640	4040	2520	95.3 75-125
Manganese	388	450	50.4	123.1 75-125
Molybdenum				
Nickel	8.5	55.3	50.4	92.9 75-125
Palladium				
Platinum				
Potassium	1000	3190	2520	86.9 75-125
Selenium	0.53	48.1	50.4	94.4 75-125
Silicon				
Silver	0.0	17.9	20.2	88.8 75-125
Sodium	51.8	2340	2520	90.8 75-125
Strontium				
Thallium	0.0	44.9	50.4	89.1 75-125
Tin	anr			
Titanium				
Tungsten				
Vanadium	15.6	62.7	50.4	93.5 75-125
Zinc	65.8	115	50.4	97.7 75-125
Zirconium				

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21187: MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22, MC21734-23,
MC21734-24

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
 - (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
 - (b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike is not within acceptable range.
 - (c) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/17/13

Metal	MC21734-18 Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum	6030	7150	202	555.7(a)	0.6	20
Antimony	0.48	27.5	50.4	53.6 (b)	1.1	20
Arsenic	5.7	52.4	50.4	92.7	0.2	20
Barium	74.5	260	202	92.0	1.9	20
Beryllium	0.34	45.4	50.4	89.4	0.4	20
Boron						
Cadmium	0.49	47.3	50.4	92.9	0.4	20
Calcium	6300	7490	2520	47.2 (b)	0.3	20
Chromium	11.1	59.3	50.4	95.7	0.0	20
Cobalt	4.1	51.7	50.4	94.5	0.4	20
Copper	16.0	64.5	50.4	96.3	0.5	20
Gold						
Iron	10400	12000	202	793.9(a)	4.3	20
Lead	46.6	140	101	92.7	0.7	20
Magnesium	1640	3920	2520	90.5	3.0	20
Manganese	388	427	50.4	77.4	5.2	20
Molybdenum						
Nickel	8.5	55.6	50.4	93.5	0.5	20
Palladium						
Platinum						
Potassium	1000	3180	2520	86.5	0.3	20
Selenium	0.53	48.2	50.4	94.6	0.2	20
Silicon						
Silver	0.0	17.8	20.2	88.3	0.6	20
Sodium	51.8	2330	2520	90.4	0.4	20
Strontium						
Thallium	0.0	45.0	50.4	89.3	0.2	20
Tin	anr					
Titanium						
Tungsten						
Vanadium	15.6	62.3	50.4	92.7	0.6	20
Zinc	65.8	116	50.4	99.6	0.9	20
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21187: MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22, MC21734-23,
MC21734-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/17/13

06/17/13

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	LCS Result	Spikelot MPLCS80	% Rec	QC Limits
Aluminum	194	200	97.0	80-120	8540	8840	96.6	54-146
Antimony	49.4	50	98.8	80-120	103	88.2	116.8	11-231
Arsenic	49.7	50	99.4	80-120	102	99.6	102.4	81-119
Barium	185	200	92.5	80-120	297	310	95.8	83-117
Beryllium	46.9	50	93.8	80-120	67.9	72.3	93.9	82-118
Boron								
Cadmium	48.5	50	97.0	80-120	181	182	99.5	82-118
Calcium	2280	2500	91.2	80-120	6280	6790	92.5	83-118
Chromium	49.0	50	98.0	80-120	134	136	98.5	80-121
Cobalt	49.9	50	99.8	80-120	128	128	100.0	83-116
Copper	48.0	50	96.0	80-120	101	102	99.0	81-119
Gold								
Iron	180	200	90.0	80-120	11600	12600	92.1	41-158
Lead	94.8	100	94.8	80-120	111	115	96.5	82-119
Magnesium	2390	2500	95.6	80-120	2950	3010	98.0	77-123
Manganese	48.9	50	97.8	80-120	323	323	100.0	82-117
Molybdenum								
Nickel	48.9	50	97.8	80-120	154	153	100.7	82-118
Palladium								
Platinum								
Potassium	2310	2500	92.4	80-120	2710	2840	95.4	71-129
Selenium	50.2	50	100.4	80-120	155	150	103.3	77-123
Silicon								
Silver	18.4	20	92.0	80-120	39.4	40.4	97.5	75-125
Sodium	2400	2500	96.0	80-120	2750	2760	99.6	71-129
Strontium								
Thallium	48.1	50	96.2	80-120	174	174	100.0	79-122
Tin	anr							
Titanium								
Tungsten								
Vanadium	47.7	50	95.4	80-120	93.5	97.6	95.8	77-123
Zinc	49.5	50	99.0	80-120	151	161	93.8	81-119
Zirconium								

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21187: MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22, MC21734-23,
MC21734-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.2.3
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 06/17/13

Metal	MC21734-18			QC Limits
	Original	SDL 1:5	%DIF	
Aluminum	60300	64800	7.4	0-10
Antimony	4.80	6.60	37.5 (a)	0-10
Arsenic	57.5	65.4	13.7 (a)	0-10
Barium	745	803	7.7	0-10
Beryllium	3.40	3.80	11.8 (a)	0-10
Boron				
Cadmium	4.90	6.20	26.5 (a)	0-10
Calcium	63000	68700	9.0	0-10
Chromium	111	118	5.9	0-10
Cobalt	40.9	44.1	7.8	0-10
Copper	161	172	7.3	0-10
Gold				
Iron	104000	113000	9.2	0-10
Lead	466	516	10.6 (b)	0-10
Magnesium	16400	17900	9.2	0-10
Manganese	3890	4200	8.1	0-10
Molybdenum				
Nickel	84.8	92.6	9.2	0-10
Palladium				
Platinum				
Potassium	10000	11600	15.9 (b)	0-10
Selenium	5.30	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	518	620	19.6 (a)	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin	anr			
Titanium				
Tungsten				
Vanadium	157	169	7.7	0-10
Zinc	659	738	12.0 (b)	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21187: MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22, MC21734-23,
MC21734-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21734
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

06/17/13

Metal	Sample ml	Final ml	MC21734-18 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
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Aluminum

Antimony	10	10.226	4.8	4.693917	19	.1	2	19.55799	73.1 (a) 80-120
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Arsenic

Barium

Beryllium

Boron

Cadmium

Calcium	10	10.226	63030	61637	169200	.126	10000	123215.3	87.3 80-120
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Chromium

Cobalt

Copper

Gold

Iron

Lead

Magnesium

Manganese

Molybdenum

Nickel

Palladium

Platinum

Potassium

Selenium

Silicon

Silver

Sodium

Strontium

Thallium

Tin

Titanium

Tungsten

Vanadium

Zinc

Zirconium

6.2.5

6

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21734

Account: WESTONIL - Weston Solutions

Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21187: MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22, MC21734-23,
MC21734-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(**) Corr. sample result = Raw * (sample volume / final volume)

(anr) Analyte not requested

(a) Post-digestion spike recoveries outside of control limits indicate possible matrix interference.

6.2.5
6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21192
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 06/17/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0029	.0097	0.013	<0.033

Associated samples MP21192: MC21734-7, MC21734-8, MC21734-9, MC21734-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.3.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21192
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 06/17/13

Metal	MC21631-13 Original MS	Spikelot HGRWS1	QC % Rec	QC Limits
Mercury	0.017	0.47	0.492	92.1 80-120

Associated samples MP21192: MC21734-7, MC21734-8, MC21734-9, MC21734-10

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.3.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21192
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/17/13

Metal	MC21631-13 Original MSD	Spikelot HGRWS1	MSD % Rec	RPD	QC Limit
Mercury	0.017 0.48	0.492	94.1	2.1	20

Associated samples MP21192: MC21734-7, MC21734-8, MC21734-9, MC21734-10

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.3.2
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21192
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/17/13

06/17/13

Metal	BSP Result	Spikelot HGRWS1	QC % Rec	BSD Limits	BSP Result	Spikelot HGRWS1	BSD RPD	QC Limit
Mercury	0.46	0.5	92.0	80-120	0.46	0.5	92.0	0.0

Associated samples MP21192: MC21734-7, MC21734-8, MC21734-9, MC21734-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.3.3

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21192
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 06/17/13

Metal	LCS Result	Spikelot HGLCS80	QC % Rec	QC Limits
Mercury	20.2	19.9	101.5	69-130

Associated samples MP21192: MC21734-7, MC21734-8, MC21734-9, MC21734-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.3.3
6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21212
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/20/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0087	.0097	0.011	<0.033

Associated samples MP21212: MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17, MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.4.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21212
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 06/20/13

Metal	MC21734-18 Original MS	Spikelot HGRWS1	QC % Rec	QC Limits
Mercury	0.089	0.70	0.533	114.5 80-120

Associated samples MP21212: MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17, MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.4.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21212
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/20/13

Metal	MC21734-18 Original MSD	Spikelot HGRWS1	MSD % Rec	QC RPD	QC Limit
Mercury	0.089 0.75 0.55 120.3(a) 6.9				20

Associated samples MP21212: MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17, MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.

6.4.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734

Account: WESTONIL - Weston Solutions

Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21212
Matrix Type: SOLIDMethods: SW846 7471B
Units: mg/kg

Prep Date:

06/20/13

06/20/13

Metal	BSP Result	Spikelot HGRWS1	QC % Rec	BSD Limits	Spikelot HGRWS1	BSD % Rec	BSD RPD	QC Limit
Mercury	0.57	0.5	114.0	80-120	0.56	0.5	112.0	1.8

Associated samples MP21212: MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17, MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

6.4.3
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734

Account: WESTONIL - Weston Solutions

Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21212
Matrix Type: SOLIDMethods: SW846 7471B
Units: mg/kg

Prep Date: 06/20/13

Metal	LCS Result	Spikelot HGLCS80	QC % Rec	QC Limits
Mercury	22.7	19.9	114.1	69-130

Associated samples MP21212: MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17, MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

6.4.3
6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0029	.0097	0.016	<0.033

Associated samples MP21224: MC21734-23, MC21734-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.5.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 06/21/13

Metal	MC21755-3 Original MS	Spikelot HGRWS1	QC % Rec	QC Limits
Mercury	0.030	0.55	0.497	104.7 80-120

Associated samples MP21224: MC21734-23, MC21734-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

Metal	MC21755-3 Original MSD	Spikelot HGRWS1	MSD % Rec	RPD	QC Limit
Mercury	0.030	0.55	0.497	104.7	0.0 20

Associated samples MP21224: MC21734-23, MC21734-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

06/21/13

Metal	BSP Result	Spikelot HGRWS1	QC Limits	LCS Result	Spikelot HGLCS80	QC Limits
Mercury	0.44	0.5	88.0	80-120	24.0	19.9

Associated samples MP21224: MC21734-23, MC21734-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.5.3
6



General Chemistry

QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP16205/GN43286	0.40	0.0	mg/kg	741	689	93.0	80-120%
Chromium, Hexavalent	GP16205/GN43286			mg/kg	40	40.3	100.8	80-120%

Associated Samples:

Batch GP16205: MC21734-1, MC21734-2, MC21734-3, MC21734-4, MC21734-5, MC21734-6

(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP16205/GN43286	MC21734-4	mg/kg	1.6	1.7	6.1	0-20%
Redox Potential Vs H2	GN43250	MC21734-4	mV	491	492	0.2	0-20%
Solids, Percent	GN43265	MC21734-4	%	82.7	82.7	0.0	0-20%
Solids, Percent	GN43266	MC21734-18	%	82.7	82.1	0.7	0-20%
pH	GN43246	MC21734-4	su	7.0	7.0	0.0	0-20%

Associated Samples:

Batch GN43246: MC21734-1, MC21734-2, MC21734-3, MC21734-4, MC21734-5, MC21734-6

Batch GN43250: MC21734-1, MC21734-2, MC21734-3, MC21734-4, MC21734-5, MC21734-6

Batch GN43265: MC21734-1, MC21734-2, MC21734-3, MC21734-4, MC21734-5, MC21734-6, MC21734-7, MC21734-8

Batch GN43266: MC21734-9, MC21734-10, MC21734-11, MC21734-12, MC21734-13, MC21734-14, MC21734-15, MC21734-16, MC21734-17, MC21734-18, MC21734-19, MC21734-20, MC21734-21, MC21734-22, MC21734-23, MC21734-24

Batch GP16205: MC21734-1, MC21734-2, MC21734-3, MC21734-4, MC21734-5, MC21734-6

(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC21734
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP16205/GN43286	MC21734-4	mg/kg	1.6	1020	197	19.2(a)	75-125%
Chromium, Hexavalent	GP16205/GN43286	MC21734-4	mg/kg	1.6	47.8	3.0	2.9(b)	75-125%

Associated Samples:

Batch GP16205: MC21734-1, MC21734-2, MC21734-3, MC21734-4, MC21734-5, MC21734-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Insoluble spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Refer to spike blank.

(b) Soluble spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Refer to spike blank.



06/25/13

Technical Report for

Weston Solutions

Beck's Lake, South Bend, IN

Accutest Job Number: MC21753

Sampling Date: 06/11/13

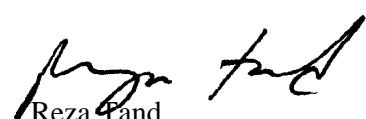
Report to:

Weston Solutions, Inc.
70W. Madison Street Suite 1990
Chicago, IL 60602
krista.richardson@westonsolutions.com
ATTN: Krista Richardson

Total number of pages in report: **42**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



Reza Pand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220)
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Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Case Narrative/Conformance Summary	4
Section 3: Summary of Hits	6
Section 4: Sample Results	11
4.1: MC21753-1: BL-SO88(0-3)-061113	12
4.2: MC21753-2: BL-SO89(0-3)-061113	13
4.3: MC21753-3: BL-SO91(0-3)-061113	14
4.4: MC21753-4: BL-SO09(0-3)-061113	15
4.5: MC21753-5: BL-SO10(0-3)-061113	16
4.6: MC21753-6: BL-SO11(0-3)-061113	17
4.7: MC21753-7: BL-SO12(0-3)-061113	18
4.8: MC21753-8: BL-SO13(0-3)-061113	19
4.9: MC21753-9: BL-SO14(0-3)-061113	20
4.10: MC21753-10: BL-SO15(0-3)-061113	21
4.11: MC21753-11: BL-SO16(0-3)-061113	22
Section 5: Misc. Forms	23
5.1: Chain of Custody	24
Section 6: Metals Analysis - QC Data Summaries	26
6.1: Prep QC MP21187: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn	27
6.2: Prep QC MP21224: Hg	39

1
2
3
4
5
6



Sample Summary

Weston Solutions

Job No: MC21753

Beck's Lake, South Bend, IN

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID	
MC21753-1	06/11/13	15:35 CF	06/13/13	SO	Soil	BL-SO88(0-3)-061113
MC21753-2	06/11/13	15:40 CF	06/13/13	SO	Soil	BL-SO89(0-3)-061113
MC21753-3	06/11/13	16:20 CF	06/13/13	SO	Soil	BL-SO91(0-3)-061113
MC21753-4	06/11/13	12:55 CF	06/13/13	SO	Soil	BL-SO09(0-3)-061113
MC21753-5	06/11/13	13:00 CF	06/13/13	SO	Soil	BL-SO10(0-3)-061113
MC21753-6	06/11/13	13:05 CF	06/13/13	SO	Soil	BL-SO11(0-3)-061113
MC21753-7	06/11/13	13:10 CF	06/13/13	SO	Soil	BL-SO12(0-3)-061113
MC21753-8	06/11/13	13:15 CF	06/13/13	SO	Soil	BL-SO13(0-3)-061113
MC21753-9	06/11/13	13:20 CF	06/13/13	SO	Soil	BL-SO14(0-3)-061113
MC21753-10	06/11/13	13:25 CF	06/13/13	SO	Soil	BL-SO15(0-3)-061113
MC21753-11	06/11/13	13:30 CF	06/13/13	SO	Soil	BL-SO16(0-3)-061113

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Weston Solutions

Job No MC21753

Site: Beck's Lake, South Bend, IN

Report Date 6/25/2013 12:03:26 PM

11 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 06/11/2013 and were received at Accutest on 06/13/2013 properly preserved, at 2.1 Deg. C and intact. These Samples received an Accutest job number of MC21753. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals By Method SW846 6010C

Matrix: SO

Batch ID: MP21187

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21734-18MSD, MC21734-18PS, MC21734-18SDL, MC21734-18MS were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike is not within acceptable range.
- Matrix Spike Duplicate Recovery(s) for Antimony, Calcium are outside control limits. Spike Duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike, Matrix Spike Duplicate Recovery(s) for Aluminum, Iron are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Antimony, Arsenic, Beryllium, Cadmium, Selenium, Sodium are outside control limits for sample MP21187-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP21187-S1 for Calcium: Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.
- MP21187-PS1 for Antimony: Post-digestion spike recoveries outside of control limits indicate possible matrix interference.
- MP21187-SD1 for Lead, Potassium, Zinc: Serial dilution indicates possible matrix interference.

Metals By Method SW846 7471B

Matrix: SO

Batch ID: MP21224

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21755-3MS, MC21755-3MSD were used as the QC samples for metals.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix: SO

Batch ID: GN43266

- Sample(s) MC21734-18DUP were used as the QC samples for Solids, Percent.

Matrix: SO

Batch ID: GN43267

- Sample(s) MC21755-1DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC21753).

Summary of Hits

Page 1 of 5

Job Number:

MC21753

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/11/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC21753-1 BL-SO88(0-3)-061113

Aluminum	4250	20	mg/kg	SW846 6010C
Arsenic	5.9	1.0	mg/kg	SW846 6010C
Barium	31.5	5.0	mg/kg	SW846 6010C
Calcium	27800	500	mg/kg	SW846 6010C
Chromium	10.1	1.0	mg/kg	SW846 6010C
Copper	12.5	2.5	mg/kg	SW846 6010C
Iron	10200	10	mg/kg	SW846 6010C
Lead	25.1	1.0	mg/kg	SW846 6010C
Magnesium	8270	500	mg/kg	SW846 6010C
Manganese	395	1.5	mg/kg	SW846 6010C
Mercury	0.052	0.034	mg/kg	SW846 7471B
Nickel	8.9	4.0	mg/kg	SW846 6010C
Potassium	602	500	mg/kg	SW846 6010C
Vanadium	15.3	1.0	mg/kg	SW846 6010C
Zinc	81.3	2.0	mg/kg	SW846 6010C

MC21753-2 BL-SO89(0-3)-061113

Aluminum	3550	20	mg/kg	SW846 6010C
Antimony	1.0	1.0	mg/kg	SW846 6010C
Arsenic	9.4	1.0	mg/kg	SW846 6010C
Barium	84.1	5.0	mg/kg	SW846 6010C
Cadmium	1.9	0.40	mg/kg	SW846 6010C
Calcium	30300	500	mg/kg	SW846 6010C
Chromium	46.2	1.0	mg/kg	SW846 6010C
Copper	52.3	2.5	mg/kg	SW846 6010C
Iron	11700	10	mg/kg	SW846 6010C
Lead	75.9	1.0	mg/kg	SW846 6010C
Magnesium	6610	500	mg/kg	SW846 6010C
Manganese	230	1.5	mg/kg	SW846 6010C
Mercury	0.19	0.037	mg/kg	SW846 7471B
Nickel	15.5	4.0	mg/kg	SW846 6010C
Potassium	541	500	mg/kg	SW846 6010C
Vanadium	11.3	1.0	mg/kg	SW846 6010C
Zinc	117	2.0	mg/kg	SW846 6010C

MC21753-3 BL-SO91(0-3)-061113

Aluminum	3040	20	mg/kg	SW846 6010C
Arsenic	8.1	0.99	mg/kg	SW846 6010C
Barium	51.8	5.0	mg/kg	SW846 6010C
Cadmium	0.52	0.40	mg/kg	SW846 6010C
Calcium	34400	500	mg/kg	SW846 6010C

Summary of Hits

Page 2 of 5

Job Number:

MC21753

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/11/13

3

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

Chromium	6.6	0.99		mg/kg	SW846 6010C
Copper	14.9	2.5		mg/kg	SW846 6010C
Iron	8640	9.9		mg/kg	SW846 6010C
Lead	49.8	0.99		mg/kg	SW846 6010C
Magnesium	5050	500		mg/kg	SW846 6010C
Manganese	263	1.5		mg/kg	SW846 6010C
Mercury	0.072	0.034		mg/kg	SW846 7471B
Nickel	7.1	4.0		mg/kg	SW846 6010C
Vanadium	10.6	0.99		mg/kg	SW846 6010C
Zinc	67.2	2.0		mg/kg	SW846 6010C

MC21753-4 BL-SO09(0-3)-061113

Aluminum	6370	20		mg/kg	SW846 6010C
Arsenic	6.0	0.99		mg/kg	SW846 6010C
Barium	35.1	5.0		mg/kg	SW846 6010C
Cadmium	0.41	0.40		mg/kg	SW846 6010C
Calcium	15900	500		mg/kg	SW846 6010C
Chromium	12.5	0.99		mg/kg	SW846 6010C
Cobalt	5.2	5.0		mg/kg	SW846 6010C
Copper	17.1	2.5		mg/kg	SW846 6010C
Iron	10900	9.9		mg/kg	SW846 6010C
Lead	26.2	0.99		mg/kg	SW846 6010C
Magnesium	9950	500		mg/kg	SW846 6010C
Manganese	366	1.5		mg/kg	SW846 6010C
Mercury	0.055	0.035		mg/kg	SW846 7471B
Nickel	12.6	4.0		mg/kg	SW846 6010C
Potassium	1280	500		mg/kg	SW846 6010C
Vanadium	16.0	0.99		mg/kg	SW846 6010C
Zinc	54.9	2.0		mg/kg	SW846 6010C

MC21753-5 BL-SO10(0-3)-061113

Aluminum	11800	20		mg/kg	SW846 6010C
Arsenic	8.5	1.0		mg/kg	SW846 6010C
Barium	109	5.0		mg/kg	SW846 6010C
Beryllium	0.54	0.40		mg/kg	SW846 6010C
Cadmium	0.71	0.40		mg/kg	SW846 6010C
Calcium	10900	500		mg/kg	SW846 6010C
Chromium	15.9	1.0		mg/kg	SW846 6010C
Cobalt	6.0	5.0		mg/kg	SW846 6010C
Copper	24.2	2.5		mg/kg	SW846 6010C
Iron	14200	10		mg/kg	SW846 6010C
Lead	54.0	1.0		mg/kg	SW846 6010C
Magnesium	5030	500		mg/kg	SW846 6010C

Summary of Hits

Page 3 of 5

Job Number:

MC21753

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/11/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Manganese		605	1.5		mg/kg	SW846 6010C
Mercury		0.10	0.038		mg/kg	SW846 7471B
Nickel		14.7	4.0		mg/kg	SW846 6010C
Potassium		1220	500		mg/kg	SW846 6010C
Vanadium		23.1	1.0		mg/kg	SW846 6010C
Zinc		93.1	2.0		mg/kg	SW846 6010C

MC21753-6 BL-SO11(0-3)-061113

Aluminum	6590	20		mg/kg	SW846 6010C
Arsenic	5.5	0.99		mg/kg	SW846 6010C
Barium	39.1	5.0		mg/kg	SW846 6010C
Cadmium	0.40	0.40		mg/kg	SW846 6010C
Calcium	16400	500		mg/kg	SW846 6010C
Chromium	11.9	0.99		mg/kg	SW846 6010C
Cobalt	5.1	5.0		mg/kg	SW846 6010C
Copper	18.2	2.5		mg/kg	SW846 6010C
Iron	10900	9.9		mg/kg	SW846 6010C
Lead	32.0	0.99		mg/kg	SW846 6010C
Magnesium	10600	500		mg/kg	SW846 6010C
Manganese	352	1.5		mg/kg	SW846 6010C
Mercury	0.072	0.038		mg/kg	SW846 7471B
Nickel	12.5	4.0		mg/kg	SW846 6010C
Potassium	1280	500		mg/kg	SW846 6010C
Vanadium	15.2	0.99		mg/kg	SW846 6010C
Zinc	68.6	2.0		mg/kg	SW846 6010C

MC21753-7 BL-SO12(0-3)-061113

Aluminum	7710	20		mg/kg	SW846 6010C
Arsenic	8.2	1.0		mg/kg	SW846 6010C
Barium	63.8	5.0		mg/kg	SW846 6010C
Beryllium	0.40	0.40		mg/kg	SW846 6010C
Cadmium	0.67	0.40		mg/kg	SW846 6010C
Calcium	20500	500		mg/kg	SW846 6010C
Chromium	13.3	1.0		mg/kg	SW846 6010C
Cobalt	5.7	5.0		mg/kg	SW846 6010C
Copper	21.2	2.5		mg/kg	SW846 6010C
Iron	12200	10		mg/kg	SW846 6010C
Lead	41.6	1.0		mg/kg	SW846 6010C
Magnesium	9950	500		mg/kg	SW846 6010C
Manganese	454	1.5		mg/kg	SW846 6010C
Mercury	0.10	0.037		mg/kg	SW846 7471B
Nickel	13.8	4.0		mg/kg	SW846 6010C
Potassium	1220	500		mg/kg	SW846 6010C

Summary of Hits

Page 4 of 5

Job Number:

MC21753

Account:

Weston Solutions

Project:

Beck's Lake, South Bend, IN

Collected:

06/11/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Vanadium		16.3	1.0		mg/kg	SW846 6010C
Zinc		71.8	2.0		mg/kg	SW846 6010C

MC21753-8 BL-SO13(0-3)-061113

Aluminum	9290	20		mg/kg	SW846 6010C
Arsenic	8.6	1.0		mg/kg	SW846 6010C
Barium	146	5.0		mg/kg	SW846 6010C
Beryllium	0.50	0.40		mg/kg	SW846 6010C
Cadmium	0.91	0.40		mg/kg	SW846 6010C
Calcium	14500	500		mg/kg	SW846 6010C
Chromium	16.8	1.0		mg/kg	SW846 6010C
Cobalt	6.4	5.0		mg/kg	SW846 6010C
Copper	34.7	2.5		mg/kg	SW846 6010C
Iron	14300	10		mg/kg	SW846 6010C
Lead	72.6	1.0		mg/kg	SW846 6010C
Magnesium	3650	500		mg/kg	SW846 6010C
Manganese	808	1.5		mg/kg	SW846 6010C
Mercury	0.12	0.038		mg/kg	SW846 7471B
Nickel	15.7	4.0		mg/kg	SW846 6010C
Potassium	1260	500		mg/kg	SW846 6010C
Vanadium	19.1	1.0		mg/kg	SW846 6010C
Zinc	115	2.0		mg/kg	SW846 6010C

MC21753-9 BL-SO14(0-3)-061113

Aluminum	9580	20		mg/kg	SW846 6010C
Arsenic	9.6	1.0		mg/kg	SW846 6010C
Barium	146	5.0		mg/kg	SW846 6010C
Beryllium	0.59	0.40		mg/kg	SW846 6010C
Cadmium	2.5	0.40		mg/kg	SW846 6010C
Calcium	20800	500		mg/kg	SW846 6010C
Chromium	19.6	1.0		mg/kg	SW846 6010C
Cobalt	6.4	5.0		mg/kg	SW846 6010C
Copper	46.4	2.5		mg/kg	SW846 6010C
Iron	15400	10		mg/kg	SW846 6010C
Lead	104	1.0		mg/kg	SW846 6010C
Magnesium	3490	500		mg/kg	SW846 6010C
Manganese	761	1.5		mg/kg	SW846 6010C
Mercury	0.13	0.035		mg/kg	SW846 7471B
Nickel	17.2	4.0		mg/kg	SW846 6010C
Potassium	1170	500		mg/kg	SW846 6010C
Vanadium	20.6	1.0		mg/kg	SW846 6010C
Zinc	133	2.0		mg/kg	SW846 6010C

Summary of Hits

Page 5 of 5

Job Number: MC21753
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13

3

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC21753-10 BL-SO15(0-3)-061113

Aluminum	9730	20	mg/kg	SW846 6010C
Arsenic	7.0	1.0	mg/kg	SW846 6010C
Barium	202	5.0	mg/kg	SW846 6010C
Beryllium	0.50	0.40	mg/kg	SW846 6010C
Cadmium	2.1	0.40	mg/kg	SW846 6010C
Calcium	21700	500	mg/kg	SW846 6010C
Chromium	20.3	1.0	mg/kg	SW846 6010C
Cobalt	6.2	5.0	mg/kg	SW846 6010C
Copper	44.8	2.5	mg/kg	SW846 6010C
Iron	14500	10	mg/kg	SW846 6010C
Lead	161	1.0	mg/kg	SW846 6010C
Magnesium	2270	500	mg/kg	SW846 6010C
Manganese	898	1.5	mg/kg	SW846 6010C
Mercury	0.14	0.035	mg/kg	SW846 7471B
Nickel	17.4	4.0	mg/kg	SW846 6010C
Potassium	1280	500	mg/kg	SW846 6010C
Vanadium	20.2	1.0	mg/kg	SW846 6010C
Zinc	181	2.0	mg/kg	SW846 6010C

MC21753-11 BL-SO16(0-3)-061113

Aluminum	8290	20	mg/kg	SW846 6010C
Arsenic	7.5	1.0	mg/kg	SW846 6010C
Barium	182	5.1	mg/kg	SW846 6010C
Beryllium	0.45	0.41	mg/kg	SW846 6010C
Cadmium	1.5	0.41	mg/kg	SW846 6010C
Calcium	38300	510	mg/kg	SW846 6010C
Chromium	17.1	1.0	mg/kg	SW846 6010C
Cobalt	5.5	5.1	mg/kg	SW846 6010C
Copper	43.4	2.5	mg/kg	SW846 6010C
Iron	13600	10	mg/kg	SW846 6010C
Lead	116	1.0	mg/kg	SW846 6010C
Magnesium	2260	510	mg/kg	SW846 6010C
Manganese	875	1.5	mg/kg	SW846 6010C
Mercury	0.22	0.037	mg/kg	SW846 7471B
Nickel	25.8	4.1	mg/kg	SW846 6010C
Potassium	1120	510	mg/kg	SW846 6010C
Vanadium	17.4	1.0	mg/kg	SW846 6010C
Zinc	145	2.0	mg/kg	SW846 6010C



4

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO88(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-1	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	93.7
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4250	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	5.9	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	31.5	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	27800	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	10.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	12.5	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10200	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	25.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	8270	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	395	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.052	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	8.9	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	602	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	15.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	81.3	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO89(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-2	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	85.7
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3550	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	9.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	84.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.9	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	30300	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	46.2	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	52.3	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	11700	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	75.9	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	6610	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	230	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.19	0.037	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	15.5	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	541	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	11.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	117	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO91(0-3)-061113**Lab Sample ID:** MC21753-3**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 89.2**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3040	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.1	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	51.8	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.52	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	34400	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	6.6	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	14.9	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	8640	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	49.8	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	5050	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	263	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.072	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	7.1	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	10.6	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	67.2	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO09(0-3)-061113**Lab Sample ID:** MC21753-4**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 84.8**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6370	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	6.0	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	35.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.41	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	15900	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.5	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.2	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	17.1	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10900	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	26.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	9950	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	366	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.055	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	12.6	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1280	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	16.0	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	54.9	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO10(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-5	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	81.7
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	11800	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.5	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	109	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.54	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.71	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	10900	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	15.9	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	6.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	24.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	14200	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	54.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	5030	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	605	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.10	0.038	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	14.7	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1220	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	23.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	93.1	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO11(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-6	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	84.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6590	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	5.5	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	39.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	16400	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	11.9	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	18.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10900	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	32.0	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	10600	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	352	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.072	0.038	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	12.5	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1280	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	15.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	68.6	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO12(0-3)-061113**Lab Sample ID:** MC21753-7**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 82.7**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7710	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.2	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	63.8	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.67	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	20500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	13.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.7	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	21.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	12200	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	41.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	9950	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	454	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.10	0.037	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	13.8	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1220	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	16.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	71.8	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO13(0-3)-061113**Lab Sample ID:** MC21753-8**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 81.4**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	9290	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	146	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.50	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.91	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	14500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	16.8	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	6.4	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	34.7	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	14300	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	72.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	3650	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	808	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.12	0.038	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	15.7	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1260	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	19.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	115	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO14(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-9	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	79.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	9580	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	9.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	146	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.59	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	2.5	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	20800	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	19.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	6.4	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	46.4	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	15400	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	104	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	3490	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	761	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.13	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	17.2	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1170	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	20.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	133	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO15(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-10	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	78.4
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	9730	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	7.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	202	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.50	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	2.1	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	21700	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	20.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	6.2	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	44.8	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	14500	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	161	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2270	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	898	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.14	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	17.4	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1280	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	20.2	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	181	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO16(0-3)-061113**Lab Sample ID:** MC21753-11**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 75.9**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	8290	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	7.5	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	182	5.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.45	0.41	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.5	0.41	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	38300	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	17.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.5	5.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	43.4	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	13600	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	116	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2260	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	875	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.22	0.037	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	25.8	4.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1120	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.51	0.51	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 510	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	17.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	145	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

RL = Reporting Limit



Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)		Matrix Codes																																																																																																																																																																																																															
Company Name INVESTON SOLUTIONS	Street Address 20 N. Wacker	Project Name Beck's Lake SA	Street:	Billing Information (If different from Report to)																																																																																																																																																																																																																									
City Chicago IL	State Illinois	City: South Bend, IN	Street Address																																																																																																																																																																																																																										
Project Contact Krista Richardson	E-mail 847-918-4064	Project# Client PO#	City	State	Zip																																																																																																																																																																																																																								
Sampler(s) Name(s) Bryniarski + Ford		Phone #	Project Manager		Attention:	PO#																																																																																																																																																																																																																							
TOTAL METERS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Accutest Sample #</th> <th rowspan="2">Field ID / Point of Collection</th> <th rowspan="2">MEOH/DI Vial #</th> <th colspan="3">Collection</th> <th rowspan="2"># of bottles</th> <th colspan="8">Number of preserved Bottles</th> </tr> <tr> <th>Date</th> <th>Time</th> <th>Sampled by</th> <th>HCl</th> <th>NaOH</th> <th>HNO3</th> <th>H2SO4</th> <th>NONE</th> <th>DIA-NH4</th> <th>MEOH</th> <th>ENCODE</th> <th>Blanks</th> </tr> </thead> <tbody> <tr> <td>-1</td> <td>BL-SO88(0-3)-061113</td> <td></td> <td>6/11/13</td> <td>15:35</td> <td>CF</td> <td>5</td> <td>1</td> <td>X</td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>-2</td> <td>BL-SO89(0-3)-061113</td> <td></td> <td></td> <td>15:40</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-3</td> <td>BL-SO91(0-3)-061113</td> <td></td> <td></td> <td>16:20</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-4</td> <td>BL-SO99(0-3)-061113</td> <td></td> <td></td> <td>12:55</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-5</td> <td>BL-SO10(0-3)-061113</td> <td></td> <td></td> <td>13:00</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-6</td> <td>BL-SO11(0-3)-061113</td> <td></td> <td></td> <td>13:05</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-7</td> <td>BL-SO12(0-3)-061113</td> <td></td> <td></td> <td>13:10</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-8</td> <td>BL-SO13(0-3)-061113</td> <td></td> <td></td> <td>13:15</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-9</td> <td>BL-SO14(0-3)-061113</td> <td></td> <td></td> <td>13:20</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-10</td> <td>BL-SO15(0-3)-061113</td> <td></td> <td></td> <td>13:25</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>-11</td> <td>BL-SO16(0-3)-061113</td> <td></td> <td></td> <td>13:30</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="14" style="text-align: center;">NO ADDITIONAL SAMPLES</td> <td colspan="2" style="text-align: center;">12D</td> </tr> </tbody> </table>														Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection			# of bottles	Number of preserved Bottles								Date	Time	Sampled by	HCl	NaOH	HNO3	H2SO4	NONE	DIA-NH4	MEOH	ENCODE	Blanks	-1	BL-SO88(0-3)-061113		6/11/13	15:35	CF	5	1	X		X		X			-2	BL-SO89(0-3)-061113			15:40					X		X				-3	BL-SO91(0-3)-061113			16:20					X		X				-4	BL-SO99(0-3)-061113			12:55					X		X				-5	BL-SO10(0-3)-061113			13:00					X		X				-6	BL-SO11(0-3)-061113			13:05					X		X				-7	BL-SO12(0-3)-061113			13:10					X		X				-8	BL-SO13(0-3)-061113			13:15					X		X				-9	BL-SO14(0-3)-061113			13:20					X		X				-10	BL-SO15(0-3)-061113			13:25					X		X				-11	BL-SO16(0-3)-061113			13:30					X		X				NO ADDITIONAL SAMPLES														12D	
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<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY			_____			Commercial "A" = Results Only Commercial "B" = Results + QC Summary																																																																																																																																																																																																																							
Emergency & Rush T/A data available VIA LabLink														CHICAGO SC 6/12/13 18:00 1 FedEx 6/13/13 2 <i>[Signature]</i> Relinquished by Sampler: 3 Received By: 4 Relinquished By: Date Time: Received By: 4 Date Time: Received By: Relinquished by Sampler: 3 Received By: 4 Relinquished By: Date Time: Received By: Relinquished by: 5 Received By: Custody Seal # <input type="checkbox"/> Inact Preserved where applicable On Ics Cooler Temp: 5 Received By: <input type="checkbox"/> Not Inact <i>[Signature]</i> 21°C																																																																																																																																																																																																															

MC21753: Chain of Custody
Page 1 of 2



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC21753

Client: WESTON SOLUTIONS

Immediate Client Services Action Required: No

Date / Time Received: 6/13/2013

Delivery Method:

Client Service Action Required at Login: No

Project: BECKS LAKE SA

No. Coolers: 1

Airbill #'s:

Cooler Security**Y or N****Y or N**

1. Custody Seals Present: 3. COC Present:
 2. Custody Seals Intact: 4. Smpl Dates/Time OK

Cooler Temperature**Y or N**

1. Temp criteria achieved:
 2. Cooler temp verification: Infared gun
 3. Cooler media: Ice (bag)

Quality Control Preservation**Y or N****N/A**

1. Trip Blank present / cooler:
 2. Trip Blank listed on COC:
 3. Samples preserved properly:
 4. VOCs headspace free:

Sample Integrity - Documentation**Y or N**

1. Sample labels present on bottles:
 2. Container labeling complete:
 3. Sample container label / COC agree:

Sample Integrity - Condition**Y or N**

1. Sample recvd within HT:
 2. All containers accounted for:
 3. Condition of sample: Intact

Sample Integrity - Instructions**Y or N****N/A**

1. Analysis requested is clear:
 2. Bottles received for unspecified tests:
 3. Sufficient volume recvd for analysis:
 4. Compositing instructions clear:
 5. Filtering instructions clear:

Comments

Accutest Laboratories
V:508.481.6200495 Technology Center West, Bldg One
F: 508.481.7753Marlborough, MA
www.accutest.com**MC21753: Chain of Custody****Page 2 of 2**

5.1



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

06/17/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	1.2	3.6	-1.1	<20
Antimony	1.0	.11	.15	0.22	<1.0
Arsenic	1.0	.17	.21	0.060	<1.0
Barium	5.0	.032	.073	0.11	<5.0
Beryllium	0.40	.01	.024	0.040	<0.40
Boron	10	.11	.11		
Cadmium	0.40	.025	.042	0.030	<0.40
Calcium	500	2.1	6.3	7.2	<500
Chromium	1.0	.048	.095	0.0	<1.0
Cobalt	5.0	.029	.047	0.010	<5.0
Copper	2.5	.093	.56	0.14	<2.5
Gold	5.0	.15	.43		
Iron	10	.35	.87	1.2	<10
Lead	1.0	.12	.17	0.030	<1.0
Magnesium	500	3	5.1	2.6	<500
Manganese	1.5	.016	.04	0.090	<1.5
Molybdenum	10	.031	.07		
Nickel	4.0	.045	.044	0.030	<4.0
Palladium	5.0	.22	.64		
Platinum	5.0	.64	1.5		
Potassium	500	5.4	8.6	26.4	<500
Selenium	1.0	.17	.35	0.060	<1.0
Silicon	10	.2	3.3		
Silver	0.50	.081	.13	-0.010	<0.50
Sodium	500	1.6	3.3	10.7	<500
Strontium	1.0	.012	.03		
Thallium	1.0	.12	.13	0.070	<1.0
Tin	10	.087	.14		
Titanium	5.0	.066	.14		
Tungsten	10	.93	.94		
Vanadium	1.0	.082	.13	0.060	<1.0
Zinc	2.0	.045	.16	0.61	<2.0
Zirconium	5.0	.045	.088		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21187: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21753
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/17/13

Metal	MC21734-18 Original MS	Spikelot MPICP	% Rec	QC Limits
Aluminum	6030	7190	202	575.6(a) 75-125
Antimony	0.48	27.8	50.4	54.2 (b) 75-125
Arsenic	5.7	52.3	50.4	92.5 75-125
Barium	74.5	255	202	89.6 75-125
Beryllium	0.34	45.2	50.4	89.0 75-125
Boron				
Cadmium	0.49	47.1	50.4	92.5 75-125
Calcium	6300	7470	2520	46.4 (c) 75-125
Chromium	11.1	59.3	50.4	95.7 75-125
Cobalt	4.1	51.5	50.4	94.1 75-125
Copper	16.0	64.2	50.4	95.7 75-125
Gold				
Iron	10400	11500	202	545.8(a) 75-125
Lead	46.6	139	101	91.7 75-125
Magnesium	1640	4040	2520	95.3 75-125
Manganese	388	450	50.4	123.1 75-125
Molybdenum				
Nickel	8.5	55.3	50.4	92.9 75-125
Palladium				
Platinum				
Potassium	1000	3190	2520	86.9 75-125
Selenium	0.53	48.1	50.4	94.4 75-125
Silicon				
Silver	0.0	17.9	20.2	88.8 75-125
Sodium	51.8	2340	2520	90.8 75-125
Strontium				
Thallium	0.0	44.9	50.4	89.1 75-125
Tin	anr			
Titanium				
Tungsten				
Vanadium	15.6	62.7	50.4	93.5 75-125
Zinc	65.8	115	50.4	97.7 75-125
Zirconium				

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21187: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
 - (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
 - (b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike is not within acceptable range.
 - (c) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.

6.1.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21753
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/17/13

Metal	MC21734-18 Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum	6030	7150	202	555.7(a)	0.6	20
Antimony	0.48	27.5	50.4	53.6 (b)	1.1	20
Arsenic	5.7	52.4	50.4	92.7	0.2	20
Barium	74.5	260	202	92.0	1.9	20
Beryllium	0.34	45.4	50.4	89.4	0.4	20
Boron						
Cadmium	0.49	47.3	50.4	92.9	0.4	20
Calcium	6300	7490	2520	47.2 (b)	0.3	20
Chromium	11.1	59.3	50.4	95.7	0.0	20
Cobalt	4.1	51.7	50.4	94.5	0.4	20
Copper	16.0	64.5	50.4	96.3	0.5	20
Gold						
Iron	10400	12000	202	793.9(a)	4.3	20
Lead	46.6	140	101	92.7	0.7	20
Magnesium	1640	3920	2520	90.5	3.0	20
Manganese	388	427	50.4	77.4	5.2	20
Molybdenum						
Nickel	8.5	55.6	50.4	93.5	0.5	20
Palladium						
Platinum						
Potassium	1000	3180	2520	86.5	0.3	20
Selenium	0.53	48.2	50.4	94.6	0.2	20
Silicon						
Silver	0.0	17.8	20.2	88.3	0.6	20
Sodium	51.8	2330	2520	90.4	0.4	20
Strontium						
Thallium	0.0	45.0	50.4	89.3	0.2	20
Tin	anr					
Titanium						
Tungsten						
Vanadium	15.6	62.3	50.4	92.7	0.6	20
Zinc	65.8	116	50.4	99.6	0.9	20
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21187: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.

6.1.2
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21753
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/17/13

06/17/13

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	LCS Result	Spikelot MPLCS80	% Rec	QC Limits
Aluminum	194	200	97.0	80-120	8540	8840	96.6	54-146
Antimony	49.4	50	98.8	80-120	103	88.2	116.8	11-231
Arsenic	49.7	50	99.4	80-120	102	99.6	102.4	81-119
Barium	185	200	92.5	80-120	297	310	95.8	83-117
Beryllium	46.9	50	93.8	80-120	67.9	72.3	93.9	82-118
Boron								
Cadmium	48.5	50	97.0	80-120	181	182	99.5	82-118
Calcium	2280	2500	91.2	80-120	6280	6790	92.5	83-118
Chromium	49.0	50	98.0	80-120	134	136	98.5	80-121
Cobalt	49.9	50	99.8	80-120	128	128	100.0	83-116
Copper	48.0	50	96.0	80-120	101	102	99.0	81-119
Gold								
Iron	180	200	90.0	80-120	11600	12600	92.1	41-158
Lead	94.8	100	94.8	80-120	111	115	96.5	82-119
Magnesium	2390	2500	95.6	80-120	2950	3010	98.0	77-123
Manganese	48.9	50	97.8	80-120	323	323	100.0	82-117
Molybdenum								
Nickel	48.9	50	97.8	80-120	154	153	100.7	82-118
Palladium								
Platinum								
Potassium	2310	2500	92.4	80-120	2710	2840	95.4	71-129
Selenium	50.2	50	100.4	80-120	155	150	103.3	77-123
Silicon								
Silver	18.4	20	92.0	80-120	39.4	40.4	97.5	75-125
Sodium	2400	2500	96.0	80-120	2750	2760	99.6	71-129
Strontium								
Thallium	48.1	50	96.2	80-120	174	174	100.0	79-122
Tin	anr							
Titanium								
Tungsten								
Vanadium	47.7	50	95.4	80-120	93.5	97.6	95.8	77-123
Zinc	49.5	50	99.0	80-120	151	161	93.8	81-119
Zirconium								

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21187: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21753
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

06/17/13

Metal	MC21734-18 Original	SDL 1:5	%DIF	QC Limits
Aluminum	60300	64800	7.4	0-10
Antimony	4.80	6.60	37.5 (a)	0-10
Arsenic	57.5	65.4	13.7 (a)	0-10
Barium	745	803	7.7	0-10
Beryllium	3.40	3.80	11.8 (a)	0-10
Boron				
Cadmium	4.90	6.20	26.5 (a)	0-10
Calcium	63000	68700	9.0	0-10
Chromium	111	118	5.9	0-10
Cobalt	40.9	44.1	7.8	0-10
Copper	161	172	7.3	0-10
Gold				
Iron	104000	113000	9.2	0-10
Lead	466	516	10.6 (b)	0-10
Magnesium	16400	17900	9.2	0-10
Manganese	3890	4200	8.1	0-10
Molybdenum				
Nickel	84.8	92.6	9.2	0-10
Palladium				
Platinum				
Potassium	10000	11600	15.9 (b)	0-10
Selenium	5.30	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	518	620	19.6 (a)	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin	anr			
Titanium				
Tungsten				
Vanadium	157	169	7.7	0-10
Zinc	659	738	12.0 (b)	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21187: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (anr) Analyte not requested
- (a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- (b) Serial dilution indicates possible matrix interference.

6.1.4
6

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21753
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

06/17/13

Metal	Sample ml	Final ml	MC21734-18 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
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Aluminum

Antimony	10	10.226	4.8	4.693917	19	.1	2	19.55799	73.1 (a) 80-120
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Arsenic

Barium

Beryllium

Boron

Cadmium

Calcium	10	10.226	63030	61637	169200	.126	10000	123215.3	87.3 80-120
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Chromium

Cobalt

Copper

Gold

Iron

Lead

Magnesium

Manganese

Molybdenum

Nickel

Palladium

Platinum

Potassium

Selenium

Silicon

Silver

Sodium

Strontium

Thallium

Tin

Titanium

Tungsten

Vanadium

Zinc

Zirconium

6.1.5

6

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21187
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21187: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Post-digestion spike recoveries outside of control limits indicate possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method BlanksLogin Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, INQC Batch ID: MP21224
Matrix Type: SOLIDMethods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0029	.0097	0.016	<0.033

Associated samples MP21224: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 06/21/13

Metal	MC21755-3 Original MS	Spikelot HGRWS1	QC % Rec	QC Limits
Mercury	0.030	0.55	0.497	104.7 80-120

Associated samples MP21224: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

Metal	MC21755-3 Original MSD	Spikelot HGRWS1	MSD % Rec	MSD RPD	QC Limit
Mercury	0.030	0.55	0.497	104.7	0.0 20

Associated samples MP21224: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21753
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

06/21/13

Metal	BSP Result	Spikelot HGRWS1	QC % Rec	LCS Limits	Spikelot HGLCS80	QC % Rec	Limits
Mercury	0.44	0.5	88.0	80-120	24.0	19.9	120.6 69-130

Associated samples MP21224: MC21753-1, MC21753-2, MC21753-3, MC21753-4, MC21753-5, MC21753-6, MC21753-7, MC21753-8, MC21753-9, MC21753-10, MC21753-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

6.2.3

6



06/25/13

Technical Report for

Weston Solutions

Beck's Lake, South Bend, IN

Accutest Job Number: MC21755

Sampling Dates: 06/11/13 - 06/12/13

Report to:

Weston Solutions, Inc.
70W. Madison Street Suite 1990
Chicago, IL 60602
krista.richardson@westonsolutions.com

ATTN: Krista Richardson

Total number of pages in report: **78**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



Reza Pand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220)
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Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Case Narrative/Conformance Summary	5
Section 3: Summary of Hits	7
Section 4: Sample Results	17
4.1: MC21755-1: BL-SO37(0-3)-061213	18
4.2: MC21755-2: BL-SO38(0-3)-061213	19
4.3: MC21755-3: BL-SO39(0-3)-061213	20
4.4: MC21755-4: BL-SO41(0-3)-061213	21
4.5: MC21755-5: BL-SO42(0-3)-061213	22
4.6: MC21755-6: BL-SO43(0-3)-061213	23
4.7: MC21755-7: BL-SO44(0-3)-061213	24
4.8: MC21755-8: BL-SO70(0-3)-061113D	25
4.9: MC21755-9: BL-SO70(0-3)-061113	26
4.10: MC21755-10: BL-SO71(0-3)-061113	27
4.11: MC21755-11: BL-SO72(0-3)-061113	28
4.12: MC21755-12: BL-SO73(0-3)-061113	29
4.13: MC21755-13: BL-SO74(0-3)-061113	30
4.14: MC21755-14: BL-SO76(0-3)-061113	31
4.15: MC21755-15: BL-SO77(0-3)-061113	32
4.16: MC21755-16: BL-SO78(0-3)-061113	33
4.17: MC21755-17: BL-SO79(0-3)-061113	34
4.18: MC21755-18: BL-SO80(0-3)-061113	35
4.19: MC21755-19: BL-SO81(0-3)-061113	36
4.20: MC21755-20: BL-SO81(0-3)-061113D	37
4.21: MC21755-21: BL-SO83(0-3)-061113	38
4.22: MC21755-22: BL-SO84(0-3)-061113	39
4.23: MC21755-23: BL-SO85(0-3)-061113	40
4.24: MC21755-24: BL-SO87(0-3)-061113	41
Section 5: Misc. Forms	42
5.1: Chain of Custody	43
Section 6: Metals Analysis - QC Data Summaries	46
6.1: Prep QC MP21202: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn	47
6.2: Prep QC MP21205: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn	59
6.3: Prep QC MP21224: Hg	71
6.4: Prep QC MP21225: Hg	75



Sample Summary

Weston Solutions

Job No: MC21755

Beck's Lake, South Bend, IN

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID	
MC21755-1	06/12/13	10:15 CF	06/13/13	SO	Soil	BL-SO37(0-3)-061213
MC21755-2	06/12/13	10:20 CF	06/13/13	SO	Soil	BL-SO38(0-3)-061213
MC21755-3	06/12/13	10:25 CF	06/13/13	SO	Soil	BL-SO39(0-3)-061213
MC21755-4	06/12/13	10:30 CF	06/13/13	SO	Soil	BL-SO41(0-3)-061213
MC21755-5	06/12/13	10:35 CF	06/13/13	SO	Soil	BL-SO42(0-3)-061213
MC21755-6	06/12/13	10:40 CF	06/13/13	SO	Soil	BL-SO43(0-3)-061213
MC21755-7	06/12/13	10:45 CF	06/13/13	SO	Soil	BL-SO44(0-3)-061213
MC21755-8	06/11/13	13:20 CF	06/13/13	SO	Soil	BL-SO70(0-3)-061113D
MC21755-9	06/11/13	13:15 CF	06/13/13	SO	Soil	BL-SO70(0-3)-061113
MC21755-10	06/11/13	13:20 CF	06/13/13	SO	Soil	BL-SO71(0-3)-061113
MC21755-11	06/11/13	13:25 CF	06/13/13	SO	Soil	BL-SO72(0-3)-061113
MC21755-12	06/11/13	13:30 CF	06/13/13	SO	Soil	BL-SO73(0-3)-061113
MC21755-13	06/11/13	13:35 CF	06/13/13	SO	Soil	BL-SO74(0-3)-061113

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary

(continued)

Weston Solutions

Job No: MC21755

Beck's Lake, South Bend, IN

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID	
MC21755-14	06/11/13	14:00 CF	06/13/13	SO	Soil	BL-SO76(0-3)-061113
MC21755-15	06/11/13	14:05 CF	06/13/13	SO	Soil	BL-SO77(0-3)-061113
MC21755-15D	06/11/13	14:05 CF	06/13/13	SO	Soil Dup/MSD	BL-SO77(0-3)-061113
MC21755-15S	06/11/13	14:05 CF	06/13/13	SO	Soil Matrix Spike	BL-SO77(0-3)-061113
MC21755-16	06/11/13	14:10 CF	06/13/13	SO	Soil	BL-SO78(0-3)-061113
MC21755-17	06/11/13	14:15 CF	06/13/13	SO	Soil	BL-SO79(0-3)-061113
MC21755-18	06/11/13	14:20 CF	06/13/13	SO	Soil	BL-SO80(0-3)-061113
MC21755-19	06/11/13	14:25 CF	06/13/13	SO	Soil	BL-SO81(0-3)-061113
MC21755-20	06/11/13	14:30 CF	06/13/13	SO	Soil	BL-SO81(0-3)-061113D
MC21755-21	06/11/13	14:50 CF	06/13/13	SO	Soil	BL-SO83(0-3)-061113
MC21755-22	06/11/13	14:55 CF	06/13/13	SO	Soil	BL-SO84(0-3)-061113
MC21755-23	06/11/13	15:00 CF	06/13/13	SO	Soil	BL-SO85(0-3)-061113
MC21755-24	06/11/13	15:30 CF	06/13/13	SO	Soil	BL-SO87(0-3)-061113

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Weston Solutions

Job No MC21755

Site: Beck's Lake, South Bend, IN

Report Date 6/25/2013 11:23:00 AM

24 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on between 06/11/2013 and 06/12/2013 and were received at Accutest on 06/13/2013 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of MC21755. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals By Method SW846 6010C

Matrix: SO

Batch ID: MP21202

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21755-15MSD, MC21755-15PS, MC21755-15SDL, MC21755-15MS, MC21755-15MSD were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony, Lead are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.
- Matrix Spike Duplicate Recovery(s) for Antimony, Lead, Magnesium are outside control limits. Spike Duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike, Matrix Spike Duplicate Recovery(s) for Aluminum, Calcium, Iron are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for MSD for Calcium, Magnesium are outside control limits for sample MP21202-S2. High RPD due to possible matrix interference and/or sample non-homogeneity.
- RPD(s) for Serial Dilution for Beryllium, Cadmium, Sodium are outside control limits for sample MP21202-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP21202-SD1 for Calcium, Chromium, Zinc: Serial dilution indicates possible matrix interference.
- MP21202-SD1 for Potassium: Serial Dilution RPD acceptable due to low duplicate and sample concentrations.
- Matrix Spike Recovery(s) for Manganese are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Matrix: SO

Batch ID: MP21205

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21756-9MS, MC21756-9MSD, MC21756-9PS, MC21756-9SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.
- Matrix Spike Duplicate Recovery(s) for Antimony are outside control limits. Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike, Matrix Spike Duplicate Recovery(s) for Calcium, Aluminum, Iron, Magnesium, Manganese are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Antimony, Beryllium, Cadmium, Selenium are outside control limits for sample MP21205-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP21205-SD1 for Calcium, Chromium, Iron, Nickel, Zinc,: Serial dilution indicates possible matrix interference.
- MP21205-SD1 for Potassium: Serial Dilution RPD acceptable due to low duplicate and sample concentrations.

Metals By Method SW846 7471B**Matrix:** SO**Batch ID:** MP21224

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21755-3MS, MC21755-3MSD were used as the QC samples for metals.

Matrix: SO**Batch ID:** MP21225

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21755-15MS, MC21755-15MSD were used as the QC samples for metals.

Wet Chemistry By Method SM21 2540 B MOD.**Matrix:** SO**Batch ID:** GN43267

- Sample(s) MC21755-1DUP were used as the QC samples for Solids, Percent.

Matrix: SO**Batch ID:** GN43268

- Sample(s) MC21755-15DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC21755).

Summary of Hits

Page 1 of 10

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

3

Lab Sample ID	Client Sample ID	Result/ Analyte	Qual	RL	MDL	Units	Method
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MC21755-1 BL-SO37(0-3)-061213

Aluminum	5480	20	mg/kg	SW846 6010C
Arsenic	4.2	1.0	mg/kg	SW846 6010C
Barium	24.3	5.0	mg/kg	SW846 6010C
Calcium	37900	500	mg/kg	SW846 6010C
Chromium	10.1	1.0	mg/kg	SW846 6010C
Copper	9.8	2.5	mg/kg	SW846 6010C
Iron	12000	10	mg/kg	SW846 6010C
Lead	13.5	1.0	mg/kg	SW846 6010C
Magnesium	19400	500	mg/kg	SW846 6010C
Manganese	297	1.5	mg/kg	SW846 6010C
Nickel	11.4	4.0	mg/kg	SW846 6010C
Potassium	980	500	mg/kg	SW846 6010C
Vanadium	12.8	1.0	mg/kg	SW846 6010C
Zinc	35.0	2.0	mg/kg	SW846 6010C

MC21755-2 BL-SO38(0-3)-061213

Aluminum	5860	20	mg/kg	SW846 6010C
Arsenic	4.3	1.0	mg/kg	SW846 6010C
Barium	22.3	5.1	mg/kg	SW846 6010C
Calcium	34800	510	mg/kg	SW846 6010C
Chromium	10	1.0	mg/kg	SW846 6010C
Copper	9.3	2.5	mg/kg	SW846 6010C
Iron	11900	10	mg/kg	SW846 6010C
Lead	9.1	1.0	mg/kg	SW846 6010C
Magnesium	17500	510	mg/kg	SW846 6010C
Manganese	302	1.5	mg/kg	SW846 6010C
Nickel	11.8	4.1	mg/kg	SW846 6010C
Potassium	1040	510	mg/kg	SW846 6010C
Vanadium	12.7	1.0	mg/kg	SW846 6010C
Zinc	31.2	2.0	mg/kg	SW846 6010C

MC21755-3 BL-SO39(0-3)-061213

Aluminum	6070	20	mg/kg	SW846 6010C
Arsenic	4.6	1.0	mg/kg	SW846 6010C
Barium	23.8	5.0	mg/kg	SW846 6010C
Calcium	33200	500	mg/kg	SW846 6010C
Chromium	10.6	1.0	mg/kg	SW846 6010C
Copper	10.2	2.5	mg/kg	SW846 6010C
Iron	12100	10	mg/kg	SW846 6010C
Lead	13.1	1.0	mg/kg	SW846 6010C
Magnesium	16800	500	mg/kg	SW846 6010C

Summary of Hits

Page 2 of 10

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

3

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

Manganese	302	1.5		mg/kg	SW846 6010C
Nickel	11.2	4.0		mg/kg	SW846 6010C
Potassium	1040	500		mg/kg	SW846 6010C
Vanadium	13.6	1.0		mg/kg	SW846 6010C
Zinc	34.7	2.0		mg/kg	SW846 6010C

MC21755-4 BL-SO41(0-3)-061213

Aluminum	5990	20		mg/kg	SW846 6010C
Antimony	1.1	1.0		mg/kg	SW846 6010C
Arsenic	5.0	1.0		mg/kg	SW846 6010C
Barium	139	5.0		mg/kg	SW846 6010C
Cadmium	1.9	0.40		mg/kg	SW846 6010C
Calcium	6180	500		mg/kg	SW846 6010C
Chromium	20.0	1.0		mg/kg	SW846 6010C
Copper	52.5	2.5		mg/kg	SW846 6010C
Iron	13000	10		mg/kg	SW846 6010C
Lead	181	1.0		mg/kg	SW846 6010C
Magnesium	2070	500		mg/kg	SW846 6010C
Manganese	298	1.5		mg/kg	SW846 6010C
Mercury	0.12	0.035		mg/kg	SW846 7471B
Nickel	12.7	4.0		mg/kg	SW846 6010C
Potassium	714	500		mg/kg	SW846 6010C
Vanadium	15.9	1.0		mg/kg	SW846 6010C
Zinc	191	2.0		mg/kg	SW846 6010C

MC21755-5 BL-SO42(0-3)-061213

Aluminum	4280	20		mg/kg	SW846 6010C
Arsenic	4.3	1.0		mg/kg	SW846 6010C
Barium	64.1	5.1		mg/kg	SW846 6010C
Cadmium	0.76	0.41		mg/kg	SW846 6010C
Calcium	6570	510		mg/kg	SW846 6010C
Chromium	10.7	1.0		mg/kg	SW846 6010C
Copper	24.9	2.5		mg/kg	SW846 6010C
Iron	9890	10		mg/kg	SW846 6010C
Lead	59.8	1.0		mg/kg	SW846 6010C
Magnesium	2880	510		mg/kg	SW846 6010C
Manganese	259	1.5		mg/kg	SW846 6010C
Mercury	0.057	0.035		mg/kg	SW846 7471B
Nickel	8.8	4.1		mg/kg	SW846 6010C
Potassium	513	510		mg/kg	SW846 6010C
Vanadium	12.4	1.0		mg/kg	SW846 6010C
Zinc	80.8	2.0		mg/kg	SW846 6010C

Summary of Hits

Page 3 of 10

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

3

Lab Sample ID	Client Sample ID	Result/ Analyte	Qual	RL	MDL	Units	Method
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MC21755-6 BL-SO43(0-3)-061213

Aluminum	4380	20	mg/kg	SW846 6010C
Arsenic	5.9	1.0	mg/kg	SW846 6010C
Barium	57.7	5.0	mg/kg	SW846 6010C
Cadmium	0.62	0.40	mg/kg	SW846 6010C
Calcium	9590	500	mg/kg	SW846 6010C
Chromium	10.3	1.0	mg/kg	SW846 6010C
Copper	21.2	2.5	mg/kg	SW846 6010C
Iron	11200	10	mg/kg	SW846 6010C
Lead	96.3	1.0	mg/kg	SW846 6010C
Magnesium	4750	500	mg/kg	SW846 6010C
Manganese	216	1.5	mg/kg	SW846 6010C
Mercury	0.068	0.036	mg/kg	SW846 7471B
Nickel	8.7	4.0	mg/kg	SW846 6010C
Potassium	566	500	mg/kg	SW846 6010C
Vanadium	12.1	1.0	mg/kg	SW846 6010C
Zinc	78.5	2.0	mg/kg	SW846 6010C

MC21755-7 BL-SO44(0-3)-061213

Aluminum	4920	20	mg/kg	SW846 6010C
Arsenic	4.6	0.99	mg/kg	SW846 6010C
Barium	66.6	5.0	mg/kg	SW846 6010C
Cadmium	0.48	0.40	mg/kg	SW846 6010C
Calcium	2930	500	mg/kg	SW846 6010C
Chromium	10.6	0.99	mg/kg	SW846 6010C
Copper	20.8	2.5	mg/kg	SW846 6010C
Iron	10200	9.9	mg/kg	SW846 6010C
Lead	49.7	0.99	mg/kg	SW846 6010C
Magnesium	1260	500	mg/kg	SW846 6010C
Manganese	200	1.5	mg/kg	SW846 6010C
Mercury	0.059	0.035	mg/kg	SW846 7471B
Nickel	8.7	4.0	mg/kg	SW846 6010C
Potassium	579	500	mg/kg	SW846 6010C
Vanadium	13.2	0.99	mg/kg	SW846 6010C
Zinc	125	2.0	mg/kg	SW846 6010C

MC21755-8 BL-SO70(0-3)-061113D

Aluminum	629	21	mg/kg	SW846 6010C
Barium	36.8	5.2	mg/kg	SW846 6010C
Calcium	6840	520	mg/kg	SW846 6010C
Chromium	1.8	1.0	mg/kg	SW846 6010C
Copper	4.9	2.6	mg/kg	SW846 6010C

Summary of Hits

Page 4 of 10

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

3

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

Iron	1050	10		mg/kg	SW846 6010C
Lead	4.7	1.0		mg/kg	SW846 6010C
Magnesium	798	520		mg/kg	SW846 6010C
Manganese	143	1.6		mg/kg	SW846 6010C
Vanadium	1.9	1.0		mg/kg	SW846 6010C
Zinc	18.5	2.1		mg/kg	SW846 6010C

MC21755-9 BL-SO70(0-3)-061113

Aluminum	1080	20		mg/kg	SW846 6010C
Arsenic	1.4	0.98		mg/kg	SW846 6010C
Barium	39.5	4.9		mg/kg	SW846 6010C
Cadmium	0.46	0.39		mg/kg	SW846 6010C
Calcium	7260	490		mg/kg	SW846 6010C
Chromium	2.9	0.98		mg/kg	SW846 6010C
Copper	8.5	2.5		mg/kg	SW846 6010C
Iron	1980	9.8		mg/kg	SW846 6010C
Lead	8.4	0.98		mg/kg	SW846 6010C
Magnesium	1180	490		mg/kg	SW846 6010C
Manganese	159	1.5		mg/kg	SW846 6010C
Vanadium	2.7	0.98		mg/kg	SW846 6010C
Zinc	34.3	2.0		mg/kg	SW846 6010C

MC21755-10 BL-SO71(0-3)-061113

Aluminum	1890	21		mg/kg	SW846 6010C
Arsenic	3.9	1.0		mg/kg	SW846 6010C
Barium	37.0	5.2		mg/kg	SW846 6010C
Cadmium	0.72	0.42		mg/kg	SW846 6010C
Calcium	116000	5200		mg/kg	SW846 6010C
Chromium	4.6	1.0		mg/kg	SW846 6010C
Copper	14.5	2.6		mg/kg	SW846 6010C
Iron	5800	10		mg/kg	SW846 6010C
Lead	11.5	1.0		mg/kg	SW846 6010C
Magnesium	66200	520		mg/kg	SW846 6010C
Manganese	200	1.6		mg/kg	SW846 6010C
Nickel	6.0	4.2		mg/kg	SW846 6010C
Potassium	621	520		mg/kg	SW846 6010C
Vanadium	5.7	1.0		mg/kg	SW846 6010C
Zinc	45.0	2.1		mg/kg	SW846 6010C

MC21755-11 BL-SO72(0-3)-061113

Aluminum	1330	16		mg/kg	SW846 6010C
Arsenic	1.6	0.82		mg/kg	SW846 6010C

Summary of Hits

Page 5 of 10

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Barium		34.9	4.1		mg/kg	SW846 6010C
Cadmium		1.1	0.33		mg/kg	SW846 6010C
Calcium		6610	410		mg/kg	SW846 6010C
Chromium		3.7	0.82		mg/kg	SW846 6010C
Copper		7.6	2.0		mg/kg	SW846 6010C
Iron		2650	8.2		mg/kg	SW846 6010C
Lead		10.5	0.82		mg/kg	SW846 6010C
Magnesium		1220	410		mg/kg	SW846 6010C
Manganese		135	1.2		mg/kg	SW846 6010C
Mercury		0.045	0.040		mg/kg	SW846 7471B
Vanadium		3.4	0.82		mg/kg	SW846 6010C
Zinc		33.8	1.6		mg/kg	SW846 6010C

MC21755-12 BL-SO73(0-3)-061113

Aluminum	1730	20		mg/kg	SW846 6010C
Arsenic	3.8	1.0		mg/kg	SW846 6010C
Barium	45.0	5.0		mg/kg	SW846 6010C
Cadmium	0.71	0.40		mg/kg	SW846 6010C
Calcium	8510	500		mg/kg	SW846 6010C
Chromium	6.3	1.0		mg/kg	SW846 6010C
Copper	17.3	2.5		mg/kg	SW846 6010C
Iron	3040	10		mg/kg	SW846 6010C
Lead	13.9	1.0		mg/kg	SW846 6010C
Magnesium	1350	500		mg/kg	SW846 6010C
Manganese	196	1.5		mg/kg	SW846 6010C
Mercury	0.059	0.047		mg/kg	SW846 7471B
Vanadium	4.4	1.0		mg/kg	SW846 6010C
Zinc	38.3	2.0		mg/kg	SW846 6010C

MC21755-13 BL-SO74(0-3)-061113

Aluminum	1230	20		mg/kg	SW846 6010C
Arsenic	1.2	0.98		mg/kg	SW846 6010C
Barium	38.8	4.9		mg/kg	SW846 6010C
Cadmium	1.4	0.39		mg/kg	SW846 6010C
Calcium	6240	490		mg/kg	SW846 6010C
Chromium	4.0	0.98		mg/kg	SW846 6010C
Copper	9.0	2.5		mg/kg	SW846 6010C
Iron	2210	9.8		mg/kg	SW846 6010C
Lead	8.2	0.98		mg/kg	SW846 6010C
Magnesium	1080	490		mg/kg	SW846 6010C
Manganese	120	1.5		mg/kg	SW846 6010C
Mercury	0.061	0.048		mg/kg	SW846 7471B
Vanadium	3.2	0.98		mg/kg	SW846 6010C

Summary of Hits

Page 6 of 10

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

3

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

Zinc 29.9 2.0 mg/kg SW846 6010C

MC21755-14 BL-SO76(0-3)-061113

Aluminum	4810	19	mg/kg	SW846 6010C
Arsenic	5.1	0.97	mg/kg	SW846 6010C
Barium	28.3	4.8	mg/kg	SW846 6010C
Calcium	12000	480	mg/kg	SW846 6010C
Chromium	8.6	0.97	mg/kg	SW846 6010C
Copper	9.2	2.4	mg/kg	SW846 6010C
Iron	10000	9.7	mg/kg	SW846 6010C
Lead	15.4	0.97	mg/kg	SW846 6010C
Magnesium	5360	480	mg/kg	SW846 6010C
Manganese	305	1.5	mg/kg	SW846 6010C
Mercury	0.042	0.034	mg/kg	SW846 7471B
Nickel	8.2	3.9	mg/kg	SW846 6010C
Potassium	515	480	mg/kg	SW846 6010C
Vanadium	12.0	0.97	mg/kg	SW846 6010C
Zinc	51.5	1.9	mg/kg	SW846 6010C

MC21755-15 BL-SO77(0-3)-061113

Aluminum	4130	20	mg/kg	SW846 6010C
Arsenic	5.6	1.0	mg/kg	SW846 6010C
Barium	27.1	5.0	mg/kg	SW846 6010C
Calcium	27600	500	mg/kg	SW846 6010C
Chromium	11.2	1.0	mg/kg	SW846 6010C
Copper	9.8	2.5	mg/kg	SW846 6010C
Iron	9550	10	mg/kg	SW846 6010C
Lead	28.8	1.0	mg/kg	SW846 6010C
Magnesium	6760	500	mg/kg	SW846 6010C
Manganese	302	1.5	mg/kg	SW846 6010C
Mercury	0.058	0.033	mg/kg	SW846 7471B
Nickel	7.8	4.0	mg/kg	SW846 6010C
Vanadium	10.8	1.0	mg/kg	SW846 6010C
Zinc	49.8	2.0	mg/kg	SW846 6010C

MC21755-16 BL-SO78(0-3)-061113

Aluminum	292	20	mg/kg	SW846 6010C
Barium	26.9	5.1	mg/kg	SW846 6010C
Calcium	2440	510	mg/kg	SW846 6010C
Chromium	1.2	1.0	mg/kg	SW846 6010C
Copper	3.0	2.5	mg/kg	SW846 6010C
Iron	664	10	mg/kg	SW846 6010C

Summary of Hits

Page 7 of 10

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

3

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

Lead	3.2	1.0	mg/kg	SW846 6010C
Magnesium	573	510	mg/kg	SW846 6010C
Manganese	80.2	1.5	mg/kg	SW846 6010C
Zinc	18.8	2.0	mg/kg	SW846 6010C

MC21755-17 BL-SO79(0-3)-061113

Aluminum	2730	19	mg/kg	SW846 6010C
Arsenic	3.6	0.94	mg/kg	SW846 6010C
Barium	19.3	4.7	mg/kg	SW846 6010C
Calcium	126000	4700	mg/kg	SW846 6010C
Chromium	5.9	0.94	mg/kg	SW846 6010C
Copper	6.2	2.3	mg/kg	SW846 6010C
Iron	13300	9.4	mg/kg	SW846 6010C
Lead	13.8	0.94	mg/kg	SW846 6010C
Magnesium	4940	470	mg/kg	SW846 6010C
Manganese	300	1.4	mg/kg	SW846 6010C
Mercury	0.053	0.032	mg/kg	SW846 7471B
Nickel	5.3	3.7	mg/kg	SW846 6010C
Potassium	569	470	mg/kg	SW846 6010C
Vanadium	7.8	0.94	mg/kg	SW846 6010C
Zinc	41.3	1.9	mg/kg	SW846 6010C

MC21755-18 BL-SO80(0-3)-061113

Aluminum	2550	20	mg/kg	SW846 6010C
Arsenic	3.2	0.98	mg/kg	SW846 6010C
Barium	18.9	4.9	mg/kg	SW846 6010C
Calcium	68500	2500	mg/kg	SW846 6010C
Chromium	5.6	0.98	mg/kg	SW846 6010C
Copper	6.7	2.5	mg/kg	SW846 6010C
Iron	6390	9.8	mg/kg	SW846 6010C
Lead	15.9	0.98	mg/kg	SW846 6010C
Magnesium	24300	490	mg/kg	SW846 6010C
Manganese	239	1.5	mg/kg	SW846 6010C
Mercury	0.052	0.033	mg/kg	SW846 7471B
Nickel	5.7	3.9	mg/kg	SW846 6010C
Vanadium	7.2	0.98	mg/kg	SW846 6010C
Zinc	38.9	2.0	mg/kg	SW846 6010C

MC21755-19 BL-SO81(0-3)-061113

Aluminum	3570	20	mg/kg	SW846 6010C
Arsenic	29.6	1.0	mg/kg	SW846 6010C
Barium	32.9	5.1	mg/kg	SW846 6010C

Summary of Hits

Page 8 of 10

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Cadmium		3.5	0.41		mg/kg	SW846 6010C
Calcium		31900	510		mg/kg	SW846 6010C
Chromium		34.9	1.0		mg/kg	SW846 6010C
Copper		30.1	2.5		mg/kg	SW846 6010C
Iron		14300	10		mg/kg	SW846 6010C
Lead		26.8	1.0		mg/kg	SW846 6010C
Magnesium		16800	510		mg/kg	SW846 6010C
Manganese		444	1.5		mg/kg	SW846 6010C
Mercury		0.047	0.034		mg/kg	SW846 7471B
Nickel		11.4	4.1		mg/kg	SW846 6010C
Potassium		661	510		mg/kg	SW846 6010C
Vanadium		12.1	1.0		mg/kg	SW846 6010C
Zinc		77.2	2.0		mg/kg	SW846 6010C

MC21755-20 BL-SO81(0-3)-061113D

Aluminum	3790	20		mg/kg	SW846 6010C
Arsenic	13.8	1.0		mg/kg	SW846 6010C
Barium	33.1	5.1		mg/kg	SW846 6010C
Cadmium	2.3	0.41		mg/kg	SW846 6010C
Calcium	34000	510		mg/kg	SW846 6010C
Chromium	17.4	1.0		mg/kg	SW846 6010C
Copper	26.1	2.5		mg/kg	SW846 6010C
Iron	12200	10		mg/kg	SW846 6010C
Lead	28.7	1.0		mg/kg	SW846 6010C
Magnesium	17800	510		mg/kg	SW846 6010C
Manganese	422	1.5		mg/kg	SW846 6010C
Mercury	0.053	0.034		mg/kg	SW846 7471B
Nickel	11.0	4.1		mg/kg	SW846 6010C
Potassium	707	510		mg/kg	SW846 6010C
Vanadium	12.8	1.0		mg/kg	SW846 6010C
Zinc	75.1	2.0		mg/kg	SW846 6010C

MC21755-21 BL-SO83(0-3)-061113

Aluminum	3580	19		mg/kg	SW846 6010C
Arsenic	6.2	0.93		mg/kg	SW846 6010C
Barium	28.2	4.6		mg/kg	SW846 6010C
Calcium	36900	460		mg/kg	SW846 6010C
Chromium	9.0	0.93		mg/kg	SW846 6010C
Copper	15.0	2.3		mg/kg	SW846 6010C
Iron	11300	9.3		mg/kg	SW846 6010C
Lead	23.9	0.93		mg/kg	SW846 6010C
Magnesium	14200	460		mg/kg	SW846 6010C
Manganese	481	1.4		mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Mercury	0.040	0.033		mg/kg	SW846 7471B
Nickel	8.1	3.7		mg/kg	SW846 6010C
Potassium	590	460		mg/kg	SW846 6010C
Vanadium	10.7	0.93		mg/kg	SW846 6010C
Zinc	106	1.9		mg/kg	SW846 6010C

MC21755-22 BL-SO84(0-3)-061113

Aluminum	5270	19		mg/kg	SW846 6010C
Arsenic	4.9	0.94		mg/kg	SW846 6010C
Barium	35.9	4.7		mg/kg	SW846 6010C
Calcium	14800	470		mg/kg	SW846 6010C
Chromium	7.8	0.94		mg/kg	SW846 6010C
Copper	8.2	2.3		mg/kg	SW846 6010C
Iron	8300	9.4		mg/kg	SW846 6010C
Lead	11.9	0.94		mg/kg	SW846 6010C
Magnesium	8450	470		mg/kg	SW846 6010C
Manganese	287	1.4		mg/kg	SW846 6010C
Nickel	7.3	3.8		mg/kg	SW846 6010C
Potassium	515	470		mg/kg	SW846 6010C
Vanadium	11.2	0.94		mg/kg	SW846 6010C
Zinc	40.2	1.9		mg/kg	SW846 6010C

MC21755-23 BL-SO85(0-3)-061113

Aluminum	4480	18		mg/kg	SW846 6010C
Arsenic	5.8	0.90		mg/kg	SW846 6010C
Barium	27.3	4.5		mg/kg	SW846 6010C
Calcium	16400	450		mg/kg	SW846 6010C
Chromium	6.6	0.90		mg/kg	SW846 6010C
Copper	9.9	2.3		mg/kg	SW846 6010C
Iron	10600	9.0		mg/kg	SW846 6010C
Lead	11.6	0.90		mg/kg	SW846 6010C
Magnesium	7750	450		mg/kg	SW846 6010C
Manganese	339	1.4		mg/kg	SW846 6010C
Mercury	0.037	0.032		mg/kg	SW846 7471B
Nickel	8.1	3.6		mg/kg	SW846 6010C
Potassium	494	450		mg/kg	SW846 6010C
Vanadium	11.7	0.90		mg/kg	SW846 6010C
Zinc	56.3	1.8		mg/kg	SW846 6010C

MC21755-24 BL-SO87(0-3)-061113

Aluminum	4800	19		mg/kg	SW846 6010C
Arsenic	4.6	0.93		mg/kg	SW846 6010C

Summary of Hits

Page 10 of 10

Job Number: MC21755
Account: Weston Solutions
Project: Beck's Lake, South Bend, IN
Collected: 06/11/13 thru 06/12/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Barium		25.7	4.7		mg/kg	SW846 6010C
Calcium	25600		470		mg/kg	SW846 6010C
Chromium		13.6	0.93		mg/kg	SW846 6010C
Copper		8.6	2.3		mg/kg	SW846 6010C
Iron	10900		9.3		mg/kg	SW846 6010C
Lead		19.5	0.93		mg/kg	SW846 6010C
Magnesium	10600		470		mg/kg	SW846 6010C
Manganese		298	1.4		mg/kg	SW846 6010C
Mercury		0.049	0.033		mg/kg	SW846 7471B
Nickel		9.4	3.7		mg/kg	SW846 6010C
Vanadium		14.0	0.93		mg/kg	SW846 6010C
Zinc		54.4	1.9		mg/kg	SW846 6010C



4

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO37(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21755-1	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	95.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5480	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.2	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	24.3	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	37900	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.8	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	12000	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	13.5	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	19400	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	297	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	< 0.032	0.032	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.4	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	980	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	35.0	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15779

(2) Instrument QC Batch: MA15781

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO38(0-3)-061213**Lab Sample ID:** MC21755-2**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 93.7**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5860	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.3	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	22.3	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	34800	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.3	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	11900	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	9.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	17500	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	302	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	< 0.032	0.032	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.8	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	1040	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	31.2	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15779

(2) Instrument QC Batch: MA15781

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.3
4

Client Sample ID:	BL-SO39(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21755-3	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	94.4
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6070	20	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	23.8	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	33200	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	10.2	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	12100	10	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Lead	13.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	16800	500	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Manganese	302	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	< 0.034	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.2	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	1040	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	13.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	34.7	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15779
- (2) Instrument QC Batch: MA15781
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO41(0-3)-061213**Lab Sample ID:** MC21755-4**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 85.0**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5990	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	1.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	5.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	139	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	1.9	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6180	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	20.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	52.5	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	13000	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	181	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	2070	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	298	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.12	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	12.7	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	714	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	15.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	191	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15779

(2) Instrument QC Batch: MA15781

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO42(0-3)-061213**Lab Sample ID:** MC21755-5**Matrix:** SO - Soil**Date Sampled:** 06/12/13**Date Received:** 06/13/13**Percent Solids:** 89.5**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4280	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.3	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	64.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.76	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6570	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	24.9	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	9890	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	59.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	2880	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	259	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.057	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	8.8	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	513	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.4	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	80.8	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15779

(2) Instrument QC Batch: MA15781

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO43(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21755-6	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	87.2
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4380	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	5.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	57.7	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.62	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	9590	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.3	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	21.2	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	11200	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	96.3	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	4750	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	216	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.068	0.036	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	8.7	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	566	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	78.5	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15779

(2) Instrument QC Batch: MA15781

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO44(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21755-7	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	86.8
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4920	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 0.99	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.6	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	66.6	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.48	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	2930	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.6	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	20.8	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	10200	9.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	49.7	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1260	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	200	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.059	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	8.7	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	579	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 0.99	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	< 0.99	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	13.2	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	125	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15779
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21224

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO70(0-3)-061113D	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-8	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	35.9
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	629	21	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	36.8	5.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.42	0.42	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.42	0.42	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6840	520	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	1.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.2	5.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	4.9	2.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	1050	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	4.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	798	520	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	143	1.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	< 0.057	0.057	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	< 4.2	4.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 520	520	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.52	0.52	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 520	520	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	1.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	18.5	2.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO70(0-3)-061113**Lab Sample ID:** MC21755-9**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 43.5**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1080	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	1.4	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	39.5	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.46	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	7260	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	2.9	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 4.9	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	8.5	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	1980	9.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	8.4	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1180	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	159	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	< 0.048	0.048	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	< 3.9	3.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.49	0.49	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 490	490	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	2.7	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	34.3	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Instrument QC Batch: MA15788

(4) Prep QC Batch: MP21202

(5) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO71(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-10	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	41.1
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1890	21	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	3.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	37.0	5.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.42	0.42	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.72	0.42	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	116000	5200	mg/kg	10	06/18/13	06/24/13	EAL	SW846 6010C ³
Chromium	4.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.2	5.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	14.5	2.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	5800	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	11.5	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	66200	520	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	200	1.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	< 0.051	0.051	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	6.0	4.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	621	520	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.52	0.52	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 520	520	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	5.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	45.0	2.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21225

RL = Reporting Limit

4.10
4

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO72(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-11	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	52.2
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1330	16	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 0.82	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	1.6	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	34.9	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.33	0.33	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	1.1	0.33	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6610	410	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	3.7	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 4.1	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	7.6	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	2650	8.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	10.5	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1220	410	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	135	1.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.045	0.040	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	< 3.3	3.3	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 410	410	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 0.82	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 410	410	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	< 0.82	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	3.4	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	33.8	1.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO73(0-3)-061113**Lab Sample ID:** MC21755-12**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 43.5**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1730	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	3.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	45.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.71	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	8510	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	6.3	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	17.3	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	3040	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	13.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1350	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	196	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.059	0.047	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	< 4.0	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	4.4	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	38.3	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.13
4

Client Sample ID:	BL-SO74(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-13	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	43.9
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1230	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	1.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	38.8	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	1.4	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6240	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	4.0	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 4.9	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.0	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	2210	9.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	8.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1080	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	120	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.061	0.048	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	< 3.9	3.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.49	0.49	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	3.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	29.9	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO76(0-3)-061113**Lab Sample ID:** MC21755-14**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 95.5**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4810	19	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 0.97	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	5.1	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	28.3	4.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	12000	480	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	8.6	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 4.8	4.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.2	2.4	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	10000	9.7	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	15.4	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	5360	480	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	305	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.042	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	8.2	3.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	515	480	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 0.97	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.48	0.48	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 480	480	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 0.97	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.0	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	51.5	1.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21225

RL = Reporting Limit

4.14

4

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO77(0-3)-061113**Lab Sample ID:** MC21755-15**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 94.4**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4130	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	5.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	27.1	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	27600	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	11.2	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.8	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	9550	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	28.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	6760	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	302	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.058	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	7.8	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	10.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	49.8	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15781

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21225

RL = Reporting Limit

4.15

4

Report of Analysis

Page 1 of 1

4.16
4

Client Sample ID:	BL-SO78(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-16	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	49.4
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	292	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	26.9	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	2440	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	1.2	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	3.0	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	664	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	3.2	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	573	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	80.2	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	< 0.045	0.045	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	< 4.1	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	18.8	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO79(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-17	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	97.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2730	19	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 0.94	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	3.6	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	19.3	4.7	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.37	0.37	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.37	0.37	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	126000	4700	mg/kg	10	06/18/13	06/24/13	EAL	SW846 6010C ³
Chromium	5.9	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 4.7	4.7	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	6.2	2.3	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	13300	9.4	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	13.8	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	4940	470	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	300	1.4	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.053	0.032	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	5.3	3.7	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	569	470	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 0.94	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.47	0.47	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 470	470	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 0.94	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	7.8	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	41.3	1.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21225

RL = Reporting Limit

4.17
4

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO80(0-3)-061113**Lab Sample ID:** MC21755-18**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 94.9**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2550	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	3.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	18.9	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	68500	2500	mg/kg	5	06/18/13	06/24/13	EAL	SW846 6010C ³
Chromium	5.6	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 4.9	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	6.7	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	6390	9.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	15.9	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	24300	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	239	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.052	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	5.7	3.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.49	0.49	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	7.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	38.9	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Instrument QC Batch: MA15788

(4) Prep QC Batch: MP21202

(5) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO81(0-3)-061113**Lab Sample ID:** MC21755-19**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 90.3**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3570	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	29.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	32.9	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	3.5	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	31900	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	34.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	30.1	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	14300	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	26.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	16800	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	444	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.047	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.4	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	661	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	77.2	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21225

RL = Reporting Limit

4.19

4

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO81(0-3)-061113D**Lab Sample ID:** MC21755-20**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 92.9**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3790	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	13.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	33.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	2.3	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	34000	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	17.4	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	26.1	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	12200	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	28.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	17800	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	422	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.053	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.0	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	707	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	75.1	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO83(0-3)-061113**Lab Sample ID:** MC21755-21**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 93.0**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3580	19	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Antimony	< 0.93	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Arsenic	6.2	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Barium	28.2	4.6	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Beryllium	< 0.37	0.37	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Cadmium	< 0.37	0.37	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Calcium	36900	460	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Chromium	9.0	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Cobalt	< 4.6	4.6	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Copper	15.0	2.3	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Iron	11300	9.3	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Lead	23.9	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Magnesium	14200	460	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Manganese	481	1.4	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Mercury	0.040	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ³
Nickel	8.1	3.7	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Potassium	590	460	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Selenium	< 0.93	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Silver	< 0.46	0.46	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ²
Sodium	< 460	460	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Thallium	< 0.93	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Vanadium	10.7	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Zinc	106	1.9	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15773

(2) Instrument QC Batch: MA15774

(3) Instrument QC Batch: MA15780

(4) Prep QC Batch: MP21205

(5) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO84(0-3)-061113**Lab Sample ID:** MC21755-22**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 94.2**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5270	19	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Antimony	< 0.94	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Arsenic	4.9	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Barium	35.9	4.7	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Beryllium	< 0.38	0.38	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Cadmium	< 0.38	0.38	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Calcium	14800	470	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Chromium	7.8	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Cobalt	< 4.7	4.7	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Copper	8.2	2.3	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Iron	8300	9.4	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Lead	11.9	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Magnesium	8450	470	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Manganese	287	1.4	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Mercury	< 0.033	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ³
Nickel	7.3	3.8	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Potassium	515	470	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Selenium	< 0.94	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Silver	< 0.47	0.47	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ²
Sodium	< 470	470	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Thallium	< 0.94	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Vanadium	11.2	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Zinc	40.2	1.9	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15773

(2) Instrument QC Batch: MA15774

(3) Instrument QC Batch: MA15780

(4) Prep QC Batch: MP21205

(5) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO85(0-3)-061113**Lab Sample ID:** MC21755-23**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 95.5**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4480	18	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Antimony	< 0.90	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Arsenic	5.8	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Barium	27.3	4.5	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Beryllium	< 0.36	0.36	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Cadmium	< 0.36	0.36	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Calcium	16400	450	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Chromium	6.6	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Cobalt	< 4.5	4.5	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Copper	9.9	2.3	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Iron	10600	9.0	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Lead	11.6	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Magnesium	7750	450	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Manganese	339	1.4	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Mercury	0.037	0.032	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ³
Nickel	8.1	3.6	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Potassium	494	450	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Selenium	< 0.90	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Silver	< 0.45	0.45	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ²
Sodium	< 450	450	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Thallium	< 0.90	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Vanadium	11.7	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Zinc	56.3	1.8	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15773

(2) Instrument QC Batch: MA15774

(3) Instrument QC Batch: MA15780

(4) Prep QC Batch: MP21205

(5) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO87(0-3)-061113**Lab Sample ID:** MC21755-24**Matrix:** SO - Soil**Date Sampled:** 06/11/13**Date Received:** 06/13/13**Percent Solids:** 95.7**Project:** Beck's Lake, South Bend, IN**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4800	19	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Antimony	< 0.93	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Arsenic	4.6	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Barium	25.7	4.7	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Beryllium	< 0.37	0.37	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Cadmium	< 0.37	0.37	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Calcium	25600	470	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Chromium	13.6	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Cobalt	< 4.7	4.7	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Copper	8.6	2.3	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Iron	10900	9.3	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Lead	19.5	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Magnesium	10600	470	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Manganese	298	1.4	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Mercury	0.049	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ³
Nickel	9.4	3.7	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Potassium	< 470	470	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Selenium	< 0.93	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Silver	< 0.47	0.47	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ²
Sodium	< 470	470	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Thallium	< 0.93	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Vanadium	14.0	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Zinc	54.4	1.9	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15773

(2) Instrument QC Batch: MA15774

(3) Instrument QC Batch: MA15780

(4) Prep QC Batch: MP21205

(5) Prep QC Batch: MP21225

RL = Reporting Limit



Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 2

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #
	MC21755

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes																		
Company Name WESTERN SOLUTIONS	Project Name BECK'S LAKE SA																																							
Street Address 20 N. WHEELER	Street:																																							
City CHICAGO IL 60606	State IN	Zip	City SOUTH BEND IN	State	Zip																																			
Project Contact KRISTA RICHARDSON	E-mail 847-918-4066	Project#	Billing Information (If different from Report to)																																					
Phone #	Fax #	Client PO#	Company Name										Street Address																											
Sampler(s) Name(s) BRYNNA REESE & FOORD	Phone #	Project Manager	Attention:										PO#																											
																						TAL MERRIS																		
Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection			Sampled by	Matrix	# of bottles	Number of preserved Bottles										Bottled	LAB USE ONLY																				
			Date	Time	HCl				NaOH	HNO3	H2SO4	None	DI Water	MECH	ENCRL	BRKDL	STL	STL			STL	STL	STL																	
-1	BL-SO37(0-3)-061213		06/12/13	10:15	CP	S	1																																	
-2	BL-SO38(0-3)-061213			10:20																																				
-3	BL-SO39(0-3)-061213			10:25																																				
-4	BL-SO41(0-3)-061213			10:30																																				
-5	BL-SO42(0-3)-061213			10:35																																				
-6	BL-SO43(0-3)-061213			10:40																																				
-7	BL-SO44(0-3)-061213			10:45																																				
-8	BL-SO70(0-3)-061113		06/11/13	13:20																																				
-9	BL-SO70(0-3)-061113			13:15																																				
-10	BL-SO71(0-3)-061113			13:18														12D																						
-11	BL-SO72(0-3)-061113			13:25																																				
-12	BL-SO73(0-3)-061113			13:30																																				
Data Deliverable Information													Comments / Special Instructions																											
Turnaround Time (Business days)				Approved By (Accutest PM): / Date:				<input type="checkbox"/> Commercial "A" (Level 1) <input checked="" type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULL1 (Level 3+4) <input type="checkbox"/> CT.RCP <input type="checkbox"/> MA MCP				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other																												
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY																																								
Emergency & Rush T/A data available VIA LabLink													Commercial "A" = Results Only Commercial "B" = Results + QC Summary																											
<table border="1"> <tr> <td>Relinquished by Sampler: 1</td> <td>Date Time: 06/12/13 17:40</td> <td>Received By: Fedex</td> <td>Relinquished By: Fedex</td> <td>Date Time: 6/13/13 9:30</td> <td>Received By: CHICAGO BC</td> </tr> <tr> <td>Relinquished by Sampler: 3</td> <td>Date Time:</td> <td>Received By:</td> <td>Relinquished By:</td> <td>Date Time:</td> <td>Received By:</td> </tr> <tr> <td>Relinquished by: 5</td> <td>Date Time:</td> <td>Received By: 5</td> <td>Custody Seal #</td> <td><input type="checkbox"/> Intact</td> <td>Preserved where applicable</td> <td>On Ice</td> <td>Cooler Temp. 3,0°</td> </tr> </table>													Relinquished by Sampler: 1	Date Time: 06/12/13 17:40	Received By: Fedex	Relinquished By: Fedex	Date Time: 6/13/13 9:30	Received By: CHICAGO BC	Relinquished by Sampler: 3	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable	On Ice	Cooler Temp. 3,0°								
Relinquished by Sampler: 1	Date Time: 06/12/13 17:40	Received By: Fedex	Relinquished By: Fedex	Date Time: 6/13/13 9:30	Received By: CHICAGO BC																																			
Relinquished by Sampler: 3	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:																																			
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable	On Ice	Cooler Temp. 3,0°																																	

MC21755: Chain of Custody
Page 1 of 3



CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 2 OF 2

FED-EX Tracking #	Boile Order Control #
	mc21755
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SL - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Client / Reporting Information		Project Information													
Company Name <i>Western Scientifics</i>	Project Name <i>Beck's Lake SA</i>														
Street Address <i>20 N. Wacker</i>	Street:														
City <i>Chicago IL</i>	State <i>Illinois</i>	Zip <i>60606</i>	City: <i>South Bend, IN</i>	Billing Information (If different from Report to)											
Project Contact <i>Krista Richardson</i>	E-mail <i>kris@westernscientifics.com</i>	Project#	Company Name												
Phone # <i>847-916-4006</i>	Fax #	Client PO#	Street Address												
Sampler(s) Name(s) <i>Bryniarski & Ford</i>	Phone #	Project Manager	City State Zip												
			Attention: PO#												
Accutest Sample #	Field ID / Point of Collection	Collection			Sampled by	Number of preserved Bottles						Comments / Special Instructions			
		MEOH/DI	Vial #	Date		Time	# of bottles	HCH	HNO3	H2SO4	NONE		Dynatech	MECH	ENCORE
-13	BL-SO74(0-3)-001113		4/11/13	13:35	CF	S	1		X					X	LAB USE ONLY
-14	BL-SO76(0-3)-001113			14:00					X					X	
-15	BL-SO77(0-3)-001113			14:05					X					X	* USE FOR MS HS/SD
-16	BL-SO79(0-3)-001113			14:10					X					X	
-17	BL-SO79(0-3)-001113			14:15					X					X	
-18	BL-SO80(0-3)-001113			14:20					X					X	
-19	BL-SO81(0-3)-001113			14:25					X					X	
-20	BL-SO81(0-3)-001113D			14:30					X					X	
-21	BL-SO83(0-3)-001113			14:35					X					X	
-22	BL-SO84(0-3)-001113			14:45					X					X	
-23	BL-SO85(0-3)-001113			15:00					X					X	
-24	BL-SO87(0-3)-001113			15:30	↓	↓	↓		X					X	

Turnaround Time (Business days)		Approved By (Accutest PM) / Date:		Data Deliverable Information		Comments / Special Instructions															
<input checked="" type="checkbox"/> Std. 10 Business Days		<input type="checkbox"/> Std. 5 Business Days (By Contract only)		<input type="checkbox"/> 5 Day RUSH		<input type="checkbox"/> 3 Day EMERGENCY		<input type="checkbox"/> 2 Day EMERGENCY		<input type="checkbox"/> 1 Day EMERGENCY		<input type="checkbox"/> Commercial "A" (Level 1)	<input type="checkbox"/> NYASP Category A	<input type="checkbox"/> Commercial "B" (Level 2)	<input type="checkbox"/> NYASP Category B	<input type="checkbox"/> FULL1 (Level 3+4)	<input type="checkbox"/> State Forms	<input type="checkbox"/> CTRCP	<input type="checkbox"/> EDD Format	<input type="checkbox"/> MA MCP	<input type="checkbox"/> Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Sample Custody must be documented below each time samples change possession, including courier delivery.									
Relinquished by Sampler: <i>J. S. H.</i>	Date Time: <i>4/12/13 17:40</i>	Received By: <i>FX</i>	Relinquished By: <i>FX</i>	Date Time: <i>6/13/13 9:32</i>	Received By: <i>CHICAGO SC</i>				
Relinquished by Sampler: <i>3</i>	Date Time: <i></i>	Received By: <i>3</i>	Relinquished By: <i>4</i>	Date Time: <i></i>	Received By: <i>4</i>				
Relinquished by: <i>5</i>	Date Time: <i></i>	Received By: <i>5</i>	Custody Seal # <input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/>	On Ics <input type="checkbox"/> Cooler Temp. <input type="checkbox"/>				

MC21755: Chain of Custody

Page 2 of 3



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC21755

Client: WESTON SOLUTIONS

Immediate Client Services Action Required: No

Date / Time Received: 6/13/2013

Delivery Method:

Client Service Action Required at Login: No

Project: BECKS LAKE SA

No. Coolers: 1

Airbill #'s:

Cooler SecurityY or NY or N

1. Custody Seals Present: 3. COC Present:
2. Custody Seals Intact: 4. Smpl Dates/Time OK

Cooler TemperatureY or N

1. Temp criteria achieved:
2. Cooler temp verification: Infared gun
3. Cooler media: Ice (bag)

Quality Control PreservationY or N N/A

1. Trip Blank present / cooler:
2. Trip Blank listed on COC:
3. Samples preserved properly:
4. VOCs headspace free:

Sample Integrity - DocumentationY or N

1. Sample labels present on bottles:
2. Container labeling complete:
3. Sample container label / COC agree:

Sample Integrity - ConditionY or N

1. Sample recvd within HT:
2. All containers accounted for:
3. Condition of sample: Intact

Sample Integrity - InstructionsY or N N/A

1. Analysis requested is clear:
2. Bottles received for unspecified tests:
3. Sufficient volume recvd for analysis:
4. Compositing instructions clear:
5. Filtering instructions clear:

Comments

Accutest Laboratories
V:508.481.6200495 Technology Center West, Bldg One
F: 508.481.7753Marlborough, MA
www.accutest.com**MC21755: Chain of Custody****Page 3 of 3**

5.1



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

06/18/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	1.7	3.6	-0.47	<20
Antimony	1.0	.12	.15	-0.070	<1.0
Arsenic	1.0	.11	.21	0.050	<1.0
Barium	5.0	.043	.073	0.010	<5.0
Beryllium	0.40	.017	.024	0.010	<0.40
Boron	10	.047	.11		
Cadmium	0.40	.014	.042	0.0	<0.40
Calcium	500	1.5	6.3	4.4	<500
Chromium	1.0	.05	.095	0.040	<1.0
Cobalt	5.0	.015	.047	-0.020	<5.0
Copper	2.5	.079	.56	0.010	<2.5
Gold	5.0	.23	.43		
Iron	10	.4	.87	2.5	<10
Lead	1.0	.076	.17	0.050	<1.0
Magnesium	500	5.3	5.1	2.3	<500
Manganese	1.5	.016	.04	0.080	<1.5
Molybdenum	10	.025	.07		
Nickel	4.0	.015	.044	0.0	<4.0
Palladium	5.0	.23	.64		
Platinum	5.0	.52	1.5		
Potassium	500	6.4	8.6	11.4	<500
Selenium	1.0	.17	.35	-0.020	<1.0
Silicon	10	.17	3.3		
Silver	0.50	.062	.13	0.0	<0.50
Sodium	500	2.3	3.3	5.3	<500
Strontium	1.0	.02	.03		
Thallium	1.0	.067	.13	-0.080	<1.0
Tin	10	.023	.14		
Titanium	5.0	.19	.14		
Tungsten	10	.73	.94		
Vanadium	1.0	.095	.13	-0.060	<1.0
Zinc	2.0	.013	.16	0.42	<2.0
Zirconium	5.0	.23	.088		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21202: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7, MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 06/18/13

Metal	MC21755-15 Original MS	Spikelot MPICP	% Rec	QC Limits
Aluminum	4130	5280	202	569.9(a) 75-125
Antimony	0.0	24.7	50.4	49.0 (b) 75-125
Arsenic	5.6	48.0	50.4	84.1 75-125
Barium	27.1	202	202	86.7 75-125
Beryllium	0.23	44.2	50.4	87.2 75-125
Boron				
Cadmium	0.27	44.6	50.4	87.9 75-125
Calcium	27600	33400	2520	230.0(a) 75-125
Chromium	11.2	53.2	50.4	83.3 75-125
Cobalt	3.1	45.8	50.4	84.6 75-125
Copper	9.8	53.6	50.4	86.8 75-125
Gold				
Iron	9550	10900	202	669.1(a) 75-125
Lead	28.8	96.7	101	67.3 (b) 75-125
Magnesium	6760	9300	2520	100.7 75-125
Manganese	302	314	50.4	23.8 (a) 75-125
Molybdenum				
Nickel	7.8	49.5	50.4	82.7 75-125
Palladium				
Platinum				
Potassium	483	2790	2520	91.5 75-125
Selenium	0.0	42.6	50.4	84.5 75-125
Silicon				
Silver	0.0	18.2	20.2	90.2 75-125
Sodium	34.8	2330	2520	91.0 75-125
Strontium				
Thallium	0.0	39.8	50.4	78.9 75-125
Tin				
Titanium				
Tungsten				
Vanadium	10.8	56.4	50.4	90.4 75-125
Zinc	49.8	95.3	50.4	90.2 75-125
Zirconium				

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21202: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7, MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
 - (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
 - (b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/18/13

Metal	MC21755-15 Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum	4130	5310	202	584.8(a)	0.6	20
Antimony	0.0	24.6	50.4	48.8 (b)	0.4	20
Arsenic	5.6	48.7	50.4	85.4	1.4	20
Barium	27.1	211	202	91.1	4.4	20
Beryllium	0.23	45.3	50.4	89.3	2.5	20
Boron						
Cadmium	0.27	44.9	50.4	88.5	0.7	20
Calcium	27600	26500	2520	-43.6(a)	23.0 (c)	20
Chromium	11.2	53.9	50.4	84.6	1.3	20
Cobalt	3.1	45.9	50.4	84.8	0.2	20
Copper	9.8	53.7	50.4	87.0	0.2	20
Gold						
Iron	9550	10300	202	371.7(a)	5.7	20
Lead	28.8	99.9	101	70.5 (b)	3.3	20
Magnesium	6760	14900	2520	322.7(b)	46.3 (c)	20
Manganese	302	356	50.4	107.0	12.5	20
Molybdenum						
Nickel	7.8	48.9	50.4	81.5	1.2	20
Palladium						
Platinum						
Potassium	483	2840	2520	93.5	1.8	20
Selenium	0.0	43.0	50.4	85.2	0.9	20
Silicon						
Silver	0.0	18.3	20.2	90.7	0.5	20
Sodium	34.8	2380	2520	93.0	2.1	20
Strontium						
Thallium	0.0	40.3	50.4	79.9	1.2	20
Tin						
Titanium						
Tungsten						
Vanadium	10.8	57.7	50.4	93.0	2.3	20
Zinc	49.8	93.3	50.4	86.2	2.1	20
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21202: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7, MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
 - (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
 - (b) Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
 - (c) High RPD due to possible matrix interference and/or sample non-homogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/18/13

06/18/13

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	LCS Result	Spikelot MPLCS80	% Rec	QC Limits
Aluminum	187	200	93.5	80-120	7280	8840	82.4	54-146
Antimony	44.7	50	89.4	80-120	83.5	88.2	94.7	11-231
Arsenic	45.2	50	90.4	80-120	93.8	99.6	94.2	81-119
Barium	181	200	90.5	80-120	304	310	98.1	83-117
Beryllium	45.7	50	91.4	80-120	70.8	72.3	97.9	82-118
Boron								
Cadmium	45.7	50	91.4	80-120	179	182	98.4	82-118
Calcium	2270	2500	90.8	80-120	6680	6790	98.4	83-118
Chromium	46.9	50	93.8	80-120	138	136	101.5	80-121
Cobalt	45.9	50	91.8	80-120	122	128	95.3	83-116
Copper	44.0	50	88.0	80-120	97.1	102	95.2	81-119
Gold								
Iron	190	200	95.0	80-120	11800	12600	93.7	41-158
Lead	88.3	100	88.3	80-120	106	115	92.2	82-119
Magnesium	2330	2500	93.2	80-120	2880	3010	95.7	77-123
Manganese	45.7	50	91.4	80-120	316	323	97.8	82-117
Molybdenum								
Nickel	44.3	50	88.6	80-120	145	153	94.8	82-118
Palladium								
Platinum								
Potassium	2270	2500	90.8	80-120	2560	2840	90.1	71-129
Selenium	45.2	50	90.4	80-120	145	150	96.7	77-123
Silicon								
Silver	18.6	20	93.0	80-120	40.5	40.4	100.2	75-125
Sodium	2290	2500	91.6	80-120	2730	2760	98.9	71-129
Strontium								
Thallium	44.3	50	88.6	80-120	162	174	93.1	79-122
Tin								
Titanium								
Tungsten								
Vanadium	47.6	50	95.2	80-120	94.4	97.6	96.7	77-123
Zinc	47.0	50	94.0	80-120	148	161	91.9	81-119
Zirconium								

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21202: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7, MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 06/18/13

Metal	MC21755-15			QC Limits
	Original	SDL 1:5	%DIF	
Aluminum	41300	43500	5.1	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	55.6	56.1	0.9	0-10
Barium	272	289	6.4	0-10
Beryllium	2.30	2.70	17.4 (a)	0-10
Boron				
Cadmium	2.70	2.20	18.5 (a)	0-10
Calcium	276000	305000	10.4 (b)	0-10
Chromium	112	124	11.5 (b)	0-10
Cobalt	31.5	32.9	4.4	0-10
Copper	98.5	103	4.1	0-10
Gold				
Iron	95600	105000	9.9	0-10
Lead	288	310	7.7	0-10
Magnesium	67600	72800	7.7	0-10
Manganese	3020	3310	9.5	0-10
Molybdenum				
Nickel	78.5	84.7	7.9	0-10
Palladium				
Platinum				
Potassium	4830	5560	14.9 (c)	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	348	503	44.6 (a)	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	108	116	7.1	0-10
Zinc	498	549	10.2 (b)	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21202: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7, MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

(c) Serial Dilution RPD acceptable due to low duplicate and sample concentrations.

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

06/18/13

Metal	Sample ml	Final ml	MC21755-15 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum									
Antimony	10	10.2	0	0	21.3	.1	2	19.60784	108.6
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Gold									
Iron									
Lead	10	10.2	288	282.3529	821.2	.1	58	568.6275	94.8
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium									
Silicon									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc									
Zirconium									

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21202
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21202: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7, MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

6.1.5
6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 06/19/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	1.7	3.6	0.12	<20
Antimony	1.0	.12	.15	0.030	<1.0
Arsenic	1.0	.11	.21	0.030	<1.0
Barium	5.0	.043	.073	-0.020	<5.0
Beryllium	0.40	.017	.024	-0.010	<0.40
Boron	10	.047	.11		
Cadmium	0.40	.014	.042	0.010	<0.40
Calcium	500	1.5	6.3	2.8	<500
Chromium	1.0	.05	.095	0.020	<1.0
Cobalt	5.0	.015	.047	0.0	<5.0
Copper	2.5	.079	.56	0.13	<2.5
Gold	5.0	.23	.43		
Iron	10	.4	.87	1.5	<10
Lead	1.0	.076	.17	0.040	<1.0
Magnesium	500	5.3	5.1	-0.18	<500
Manganese	1.5	.016	.04	0.030	<1.5
Molybdenum	10	.025	.07		
Nickel	4.0	.015	.044	0.020	<4.0
Palladium	5.0	.23	.64		
Platinum	5.0	.52	1.5		
Potassium	500	6.4	8.6	16.9	<500
Selenium	1.0	.17	.35	0.090	<1.0
Silicon	10	.17	3.3		
Silver	0.50	.081	.13	-0.020	<0.50
Sodium	500	2.3	3.3	5.6	<500
Strontium	1.0	.02	.03		
Thallium	1.0	.067	.13	0.040	<1.0
Tin	10	.023	.14		
Titanium	5.0	.19	.14		
Tungsten	10	.73	.94		
Vanadium	1.0	.095	.13	0.0	<1.0
Zinc	2.0	.013	.16	0.18	<2.0
Zirconium	5.0	.23	.088		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21205: MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.2.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/19/13

Metal	MC21756-9 Original MS	Spikelot MPICP	% Rec	QC Limits
Aluminum	1740	2250	187	272.7(a) 75-125
Antimony	0.40	34.1	46.7	72.1 (b) 75-125
Arsenic	4.6	50.2	46.7	97.5 75-125
Barium	8.6	184	187	93.8 75-125
Beryllium	0.092	40.6	46.7	86.7 75-125
Boron				
Cadmium	0.16	45.8	46.7	97.6 75-125
Calcium	132000	156000	2340	1026.8(a) 75-125
Chromium	3.9	44.2	46.7	86.2 75-125
Cobalt	2.1	43.8	46.7	89.2 75-125
Copper	7.6	50.9	46.7	92.6 75-125
Gold				
Iron	5850	7760	187	1021.5(a) 75-125
Lead	3.7	84.7	93.5	86.6 75-125
Magnesium	56700	49900	2340	-290.9(a) 75-125
Manganese	296	418	46.7	261.0(a) 75-125
Molybdenum	anr			
Nickel	5.6	45.0	46.7	84.3 75-125
Palladium				
Platinum				
Potassium	425	2760	2340	99.9 75-125
Selenium	0.19	45.8	46.7	97.6 75-125
Silicon				
Silver	0.0	18.7	18.7	100.0 75-125
Sodium	147	2400	2340	96.4 75-125
Strontium				
Thallium	0.63	37.4	46.7	78.7 75-125
Tin	anr			
Titanium				
Tungsten				
Vanadium	6.5	49.3	46.7	91.6 75-125
Zinc	19.6	57.9	46.7	81.9 75-125
Zirconium				

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21205: MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.

6.2.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/19/13

Metal	MC21756-9 Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum	1740	2290	185	296.8(a)	1.8	20
Antimony	0.40	34.1	46.3	72.7 (b)	0.0	20
Arsenic	4.6	50.1	46.3	98.2	0.2	20
Barium	8.6	186	185	95.7	1.1	20
Beryllium	0.092	41.1	46.3	88.5	1.2	20
Boron						
Cadmium	0.16	45.8	46.3	98.5	0.0	20
Calcium	132000	153000	2320	906.5(a)	1.9	20
Chromium	3.9	43.7	46.3	85.9	1.1	20
Cobalt	2.1	43.8	46.3	90.0	0.0	20
Copper	7.6	50.6	46.3	92.8	0.6	20
Gold						
Iron	5850	7850	185	1079.2(a)	1.2	20
Lead	3.7	84.7	92.7	87.4	0.0	20
Magnesium	56700	50300	2320	-276.3(a)	0.8	20
Manganese	296	415	46.3	256.8(a)	0.7	20
Molybdenum	anr					
Nickel	5.6	44.9	46.3	84.8	0.2	20
Palladium						
Platinum						
Potassium	425	2790	2320	102.1	1.1	20
Selenium	0.19	45.5	46.3	97.8	0.7	20
Silicon						
Silver	0.0	18.6	18.5	100.4	0.5	20
Sodium	147	2420	2320	98.1	0.8	20
Strontium						
Thallium	0.63	37.5	46.3	79.6	0.3	20
Tin	anr					
Titanium						
Tungsten						
Vanadium	6.5	49.0	46.3	91.7	0.6	20
Zinc	19.6	57.9	46.3	82.7	0.0	20
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21205: MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.

6.2.2
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date:

06/19/13

06/19/13

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	LCS Result	Spikelot MPLCS80	% Rec	QC Limits
Aluminum	201	200	100.5	80-120	7250	8840	82.0	54-146
Antimony	49.4	50	98.8	80-120	89.2	88.2	101.1	11-231
Arsenic	47.5	50	95.0	80-120	94.1	99.6	94.5	81-119
Barium	187	200	93.5	80-120	300	310	96.8	83-117
Beryllium	46.7	50	93.4	80-120	70.2	72.3	97.1	82-118
Boron								
Cadmium	48.1	50	96.2	80-120	183	182	100.5	82-118
Calcium	2350	2500	94.0	80-120	6430	6790	94.7	83-118
Chromium	46.8	50	93.6	80-120	126	136	92.6	80-121
Cobalt	49.4	50	98.8	80-120	126	128	98.4	83-116
Copper	45.5	50	91.0	80-120	96.5	102	94.6	81-119
Gold								
Iron	207	200	103.5	80-120	10900	12600	86.5	41-158
Lead	97.8	100	97.8	80-120	113	115	98.3	82-119
Magnesium	2440	2500	97.6	80-120	2830	3010	94.0	77-123
Manganese	47.4	50	94.8	80-120	302	323	93.5	82-117
Molybdenum	anr							
Nickel	45.7	50	91.4	80-120	145	153	94.8	82-118
Palladium								
Platinum								
Potassium	2430	2500	97.2	80-120	2630	2840	92.6	71-129
Selenium	48.9	50	97.8	80-120	151	150	100.7	77-123
Silicon								
Silver	19.1	20	95.5	80-120	40.7	40.4	100.7	75-125
Sodium	2370	2500	94.8	80-120	2640	2760	95.7	71-129
Strontium								
Thallium	46.0	50	92.0	80-120	159	174	91.4	79-122
Tin	anr							
Titanium								
Tungsten								
Vanadium	48.1	50	96.2	80-120	88.5	97.6	90.7	77-123
Zinc	48.4	50	96.8	80-120	146	161	90.7	81-119
Zirconium								

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP21205: MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.2.3
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

06/19/13

Metal	MC21756-9 Original	SDL 1:5	%DIF	QC Limits
Aluminum	19000	19700	4.0	0-10
Antimony	4.40	0.00	100.0(a)	0-10
Arsenic	50.3	54.2	7.8	0-10
Barium	93.8	95.0	1.3	0-10
Beryllium	1.00	0.00	100.0(a)	0-10
Boron				
Cadmium	1.70	2.00	17.6 (a)	0-10
Calcium	1440000	1690000	18.0 (b)	0-10
Chromium	42.4	48.0	13.2 (b)	0-10
Cobalt	23.2	24.9	7.3	0-10
Copper	83.2	87.6	5.3	0-10
Gold				
Iron	63700	71400	12.0 (b)	0-10
Lead	40.7	38.0	6.6	0-10
Magnesium	618000	656000	6.2	0-10
Manganese	3220	3510	9.1	0-10
Molybdenum	anr			
Nickel	61.3	68.0	10.9 (b)	0-10
Palladium				
Platinum				
Potassium	4630	5110	10.4 (c)	0-10
Selenium	2.10	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	1600	1750	9.4	0-10
Strontium				
Thallium	6.90	6.60	4.3	0-10
Tin	anr			
Titanium				
Tungsten				
Vanadium	70.9	75.8	6.9	0-10
Zinc	213	243	14.2 (b)	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21205: MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

(c) Serial Dilution RPD acceptable due to low duplicate and sample concentrations.

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21755
 Account: WESTONIL - Weston Solutions
 Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

06/19/13

Metal	Sample ml	Final ml	MC21756-9 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
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Aluminum

Antimony	10	10.1	4.4	2.673267	23.2	.1	2	19.80198	103.7	80-120
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Arsenic

Barium

Beryllium

Boron

Cadmium

Calcium

Chromium

Cobalt

Copper

Gold

Iron

Lead

Magnesium

Manganese

Molybdenum

Nickel

Palladium

Platinum

Potassium

Selenium

Silicon

Silver

Sodium

Strontium

Thallium

Tin

Titanium

Tungsten

Vanadium

Zinc

Zirconium

POST DIGESTATE SPIKE SUMMARY

Login Number: MC21755

Account: WESTONIL - Weston Solutions

Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21205
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21205: MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(**) Corr. sample result = Raw * (sample volume / final volume)

(anr) Analyte not requested

6.2.5
6

BLANK RESULTS SUMMARY
Part 2 - Method BlanksLogin Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, INQC Batch ID: MP21224
Matrix Type: SOLIDMethods: SW846 7471B
Units: mg/kg

Prep Date: 06/21/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0029	.0097	0.016	<0.033

Associated samples MP21224: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755

Account: WESTONIL - Weston Solutions

Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLIDMethods: SW846 7471B
Units: mg/kg

Prep Date: 06/21/13

Metal	MC21755-3 Original MS	Spikelot HGRWS1	QC % Rec	QC Limits
Mercury	0.030	0.55	0.497	104.7 80-120

Associated samples MP21224: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.3.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

Metal	MC21755-3 Original MSD	Spikelot HGRWS1	MSD % Rec	RPD	QC Limit
Mercury	0.030	0.55	0.497	104.7	0.0 20

Associated samples MP21224: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.3.2
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21224
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

06/21/13

Metal	BSP Result	Spikelot HGRWS1	QC % Rec	LCS Limits	Spikelot HGLCS80	QC % Rec	Limits
Mercury	0.44	0.5	88.0	80-120	24.0	19.9	120.6 69-130

Associated samples MP21224: MC21755-1, MC21755-2, MC21755-3, MC21755-4, MC21755-5, MC21755-6, MC21755-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.3.3

6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21755
Account: WESTONIL - Weston Solutions
Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21225
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0029	.0097	0.012	<0.033

Associated samples MP21225: MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20, MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.4.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755

Account: WESTONIL - Weston Solutions

Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21225
Matrix Type: SOLIDMethods: SW846 7471B
Units: mg/kg

Prep Date: 06/21/13

Metal	MC21755-15 Original MS	Spikelot HGRWS1	QC % Rec	QC Limits
Mercury	0.058	0.58	0.474	110.1 80-120

Associated samples MP21225: MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20, MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.4.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC21755

Account: WESTONIL - Weston Solutions

Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21225
Matrix Type: SOLIDMethods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

Metal	MC21755-15 Original MSD	Spikelot HGRWS1	MSD % Rec	MSD RPD	QC Limit
Mercury	0.058	0.60	0.482	112.6	3.4 20

Associated samples MP21225: MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20, MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.4.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21755

Account: WESTONIL - Weston Solutions

Project: Beck's Lake, South Bend, IN

QC Batch ID: MP21225
Matrix Type: SOLIDMethods: SW846 7471B
Units: mg/kg

Prep Date:

06/21/13

06/21/13

Metal	BSP Result	Spikelot HGRWS1	QC % Rec	LCS Limits	Spikelot HGLCS80	QC % Rec	Limits
Mercury	0.58	0.5	116.0	80-120	23.3	19.9	117.1 69-130

Associated samples MP21225: MC21755-8, MC21755-9, MC21755-10, MC21755-11, MC21755-12, MC21755-13, MC21755-14, MC21755-15, MC21755-16, MC21755-17, MC21755-18, MC21755-19, MC21755-20, MC21755-21, MC21755-22, MC21755-23, MC21755-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

6.4.3

6

ATTACHMENT F
DATA VALIDATION REPORT

**BECK'S LAKE HEALTH RISK SITE ASSESSMENT
SOUTH BEND, ST. JOSEPH COUNTY, INDIANA
DATA VALIDATION REPORT**

Date: June 27, 2013

Laboratory: Accutest Laboratories (Accutest), Marlborough, Massachusetts

Laboratory Project #: MC21755, MC21692, MC21734, MC21753

Data Validation Performed By: Diane Quigley, Weston Solutions, Inc. (WESTON[®]) Superfund Technical Assessment and Response Team (START)

Weston Work Order #: 20405.012.008.2161.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for sample delivery groups (SDGs) MC21755 (24 soil samples), MC21692 (13 soil samples), MC21734 (24 soil samples) and MC21753 (11 soil samples) collected for the Beck's Lake Health Risk Site Assessment that were analyzed for one or more of the following parameters and U.S. Environmental Protection Agency methods:

- Target Analyte List (TAL) Metals by SW-846 Methods 6010C and Mercury by 7471B
- Hexavalent Chromium by SW846 Method 3060A/7196A
- Redox Potential VSH2 by Method ASTM D1498-76M
- pH by SW846 Method 9045D

A level II data package was requested from Accutest. The data validation was conducted in general accordance with the EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

TAL METALS BY SW-846 METHODS 6010C AND MERCURY BY 7471B

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
BL-SO37(0-3)-061213	MC21755-1	Soil	06/12/2013	06/21/013 (6010C) 06/24/2013 (7471B)
BL-SO38(0-3)-061213	MC21755-2	Soil	06/12/2013	06/21/013 (6010C) 06/24/2013 (7471B)
BL-SO39(0-3)-061213	MC21755-3	Soil	06/12/2013	06/21/013 (6010C) 06/24/2013 (7471B)
BL-SO41(0-3)-061213	MC21755-4	Soil	06/12/2013	06/21/013 (6010C) 06/24/2013 (7471B)
BL-SO42(0-3)-061213	MC21755-5	Soil	06/12/2013	06/21/013 (6010C) 06/24/2013 (7471B)

Data Validation Report
 Beck's Lake Site
 Accutest Laboratories
 Laboratory Projects: MC21755, MC21692, MC21734, MC21753

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
BL-SO43(0-3)-061213	MC21755-6	Soil	06/12/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO44(0-3)-061213	MC21755-7	Soil	06/12/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO70(0-3)-061113D	MC21755-8	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO70(0-3)-061113	MC21755-9	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO71(0-3)-061113	MC21755-10	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO72(0-3)-061113	MC21755-11	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO73(0-3)-061113	MC21755-12	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO74(0-3)-061113	MC21755-13	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO76(0-3)-061113	MC21755-14	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO77(0-3)-061113	MC21755-15	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO78(0-3)-061113	MC21755-16	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO79(0-3)-061113	MC21755-17	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO80(0-3)-061113	MC21755-18	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO81(0-3)-061113	MC21755-19	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO81(0-3)-061113D	MC21755-20	Soil	06/11/2013	06/21/2013 (6010C) 06/24/2013 (7471B)
BL-SO83(0-3)-061113	MC21755-21	Soil	06/11/2013	06/19/2013 (6010C) 06/24/2013 (7471B)
BL-SO84(0-3)-061113	MC21755-22	Soil	06/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BL-SO85(0-3)-061113	MC21755-23	Soil	06/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BL-SO87(0-3)-061113	MC21755-24	Soil	06/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BLSO01(0-3)-061113	MC21692-1	Soil	6/11/2013	06/20/2013 (6010C)

Data Validation Report
 Beck's Lake Site
 Accutest Laboratories
 Laboratory Projects: MC21755, MC21692, MC21734, MC21753

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
				06/24/2013 (7471B)
BLSO02(0-3)-061113	MC21692-2	Soil	6/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BLSO03(0-3)-061113	MC21692-3	Soil	6/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BLSO04(0-3)-061113	MC21692-4	Soil	6/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BLSO05(0-3)-061113	MC21692-5	Soil	6/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BLSO06(0-3)-061113	MC21692-6	Soil	6/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BLSO07(0-3)-061113	MC21692-7	Soil	6/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BLSO08(0-3)-061113	MC21692-8	Soil	6/11/2013	06/20/2013 (6010C) 06/24/2013 (7471B)
BLSO17(0-3)-061213	MC21734-7	Soil	6/12/2013	06/19/2013 (6010C) 06/19/2013 (7471B)
BLSO17(0-3)-061213D	MC21734-8	Soil	6/12/2013	06/19/2013 (6010C) 06/19/2013 (7471B)
BLSO18(0-3)-061213	MC21734-9	Soil	6/12/2013	06/19/2013 (6010C) 06/19/2013 (7471B)
BL-SO19(0-3)-061213	MC21734-10	Soil	6/12/2013	06/19/2013 (6010C) 06/19/2013 (7471B)
BL-SO20(0-3)-061213	MC21734-11	Soil	6/12/2013	06/19/2013 (6010C) 06/20/2013 (7471B)
BL-SO21(0-3)-061213	MC21734-12	Soil	6/12/2013	06/19/2013 (6010C) 06/20/2013 (7471B)
BL-SO22(0-3)-061213	MC21734-13	Soil	6/12/2013	06/19/2013 (6010C) 06/20/2013 (7471B)
BL-SO23(0-3)-061213	MC21734-14	Soil	6/12/2013	06/19/2013 (6010C) 06/20/2013 (7471B)
BL-SO24(0-3)-061213	MC21734-15	Soil	6/12/2013	06/19/2013 (6010C) 06/20/2013 (7471B)
BL-SO26(0-3)-061213	MC21734-16	Soil	6/12/2013	06/19/2013 (6010C) 06/20/2013 (7471B)
BL-SO26(0-3)-061213D	MC21734-17	Soil	6/12/2013	06/19/2013 (6010C) 06/20/2013 (7471B)
BL-SO27(0-3)-061213	MC21734-18	Soil	6/12/2013	06/17/2013 (6010C) 06/20/2013 (7471B)

Data Validation Report
 Beck's Lake Site
 Accutest Laboratories
 Laboratory Projects: MC21755, MC21692, MC21734, MC21753

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
BL-SO28(0-3)-061213	MC21734-19	Soil	6/12/2013	06/17/2013 (6010C) 06/20/2013 (7471B)
BL-SO29(0-3)-061213	MC21734-20	Soil	6/12/2013	06/17/2013 (6010C) 06/20/2013 (7471B)
BL-SO30(0-3)-061213	MC21734-21	Soil	6/12/2013	06/17/2013 (6010C) 06/20/2013 (7471B)
BL-SO31(0-3)-061213	MC21734-22	Soil	6/12/2013	06/17/2013 (6010C) 06/20/2013 (7471B)
BL-SO32(0-3)-061213	MC21734-23	Soil	6/12/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO33(0-3)-061213	MC21734-24	Soil	6/12/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO88(0-3)-061113	MC21753-1	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO89(0-3)-061113	MC21753-2	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO91(0-3)-061113	MC21753-3	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO09(0-3)-061113	MC21753-4	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO10(0-3)-061113	MC21753-5	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO11(0-3)-061113	MC21753-6	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO12(0-3)-061113	MC21753-7	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO13(0-3)-061113	MC21753-8	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO14(0-3)-061113	MC21753-9	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO15(0-3)-061113	MC21753-10	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)
BL-SO16(0-3)-061113	MC21753-11	Soil	6/11/2013	06/17/2013 (6010C) 06/24/2013 (7471B)

2. **Holding Times**

Data Validation Report
Beck's Lake Site
Accutest Laboratories
Laboratory Projects: MC21755, MC21692, MC21734, MC21753

The samples were analyzed within the required holding time limit of 28 days from sample collection to analysis for mercury and 180 days from sample collection to analysis for all other metals.

3. Blank Results

SDGs MC21755, MC21692, MC21734, MC21753

All method blanks were free of target analyte contamination above the reporting limits.

4. LCS Results/Blank Spike Results

SDGs MC21755, MC21692, MC21734, MC21753

All LCS/BS recoveries and RPDs were within the laboratory-established QC limits.

5. MS and MSD Results

SDG MC21755

The metals MS/MSD was performed on sample BL-SO77(0-3)-061113 and the recoveries and RPDs were within QC limits of 75-125% (RPD <20) except for the following: Aluminum (570/585%), Antimony (49/49%), Calcium (230/-44%, RPD 23), Iron (669/372%), Lead (67/70), Magnesium (-/323, RPD 46) and Manganese (238/-). Sample concentrations for Aluminum, Calcium, Iron, Lead and Manganese were greater than 4 times the spike amount; therefore, no qualifications were necessary. A post digestion spike was performed for antimony and lead and criteria was met. A MS/MSD was also performed on sample 21756-9 (for associated samples -21 through -24) which was not included in this data package. Professional judgment was used in estimating positive and non-detected results for antimony, lead and magnesium were estimated (J,UJ) in all samples (including -21 through -24 since they are assumed to be of similar matrix) due to potential low bias.

The mercury MS/MSD was performed on samples BL-SO39(0-3)-061213 and BL-SO77(0-3)-061113 and both met QC criteria.

SDG MC21692

The metals MS/MSD was performed on sample BLSO07(0-3)-061113 and the recoveries and RPDs were within QC limits of 75-125% (RPD <20) except for the following: Aluminum (547/621%), Antimony (42/38%), Calcium (779/365%, RPD 34), Iron (-754/-797%), Manganese (268/66, RPD 21) and Zinc (70/72%). Sample concentrations for Aluminum, Calcium, Iron and Manganese were greater than 4 times the spike amount; therefore, no qualifications were necessary. A post digestion spike was performed for antimony and zinc and criteria was met. The

Data Validation Report
Beck's Lake Site
Accutest Laboratories
Laboratory Projects: MC21755, MC21692, MC21734, MC21753

positive and non-detected results for antimony and zinc were estimated (J,UJ) in all samples due to potential low bias.

The mercury MS/MSD was performed on sample 21631-13, which is not site specific but did meet all QC criteria.

SDGs MC21734, MC21753

The metals MS/MSD for Batch 21186 was performed on sample 21539-16 and was not site specific, therefore, no qualifications were made.

A metals MS/MSD was performed for Batch 21187 on sample 21734-18 and all recoveries and RPDs met QC of 75-125 (RPD <20), with the following exceptions: Aluminum (576/556%), Iron (546/794%), Antimony (54.2/54%), and Calcium (46.4/47.2). Since the parent sample concentration was greater than 4 times the spike amount for Al and Fe, no qualifications were necessary. A post digestion spike on sample 21734-18 was performed and antimony (73.1%) recovered below the QC limits of 80-120%. Professional judgment was used in estimating positive and non-detected results (J,UJ) for antimony and calcium in all samples (including samples associated with Batch 21186 due to similar matrix) due to potential low bias.

A mercury MS/MSD for Batch 21192 (associated samples 21734-7 through -10) was performed on sample 21631-13, a non-site specific sample but QC criteria was met. For Batch 21212 (associated samples 21734-11 through -22) an MS/MSD was performed on sample 21734-18 and Hg recovered slightly above the QC limits of 80-120 in the MSD (120.3). For Batch 21224 (associated samples 21734-23 and -24 and 21753-1 through -11) the MS/MSD was performed on sample 21755-3 (a site specific Weston sample included in another SDG) and all QC criteria was met. Professional judgment was used in not qualifying any Hg samples based on MS/MSD results since only one MSD recovery was slightly above QC limits, and all LCS recoveries were within QC limits.

6. Serial Dilution Results

SDG MC21755

The serial dilution was performed on sample BL-SO77(0-3)-061113 and the percent difference (%D) for calcium (10.4%), chromium (11/5%), potassium (14.9%) and zinc (10.2%) did not meet the QC criteria of less than 10%. A serial dilution was also performed on sample 21756-9 (for associated samples -21 through -24) which was not included in this data package. Professional judgment was used in estimating positive and non-detected results for calcium, chromium, potassium and zinc were estimated (J,UJ) in all samples (including -21 through -24 since they are assumed to be of similar matrix), direction of bias is uncertain.

SDG MC21692

Data Validation Report
Beck's Lake Site
Accutest Laboratories
Laboratory Projects: MC21755, MC21692, MC21734, MC21753

The serial dilution was performed on sample BL-SO07(0-3)-061113 and all QC criteria was met.

SDGs MC21734, MC21753

A serial dilution for Batch 21186 (associated samples 21734 -7 through -17) was performed on sample 21539-16 which is not a site specific sample, therefore, no qualifications were made based on these results. However, a serial dilution for Batch 21187 (associated samples 21734-18 through -24 and 21753-1 through -11) was performed on sample 21734-18 and met QC criteria of percent difference less than 10%, with the following exceptions: Lead (10.6), Potassium (15.9) and Zinc (12). Professional judgment was used in estimating positive and non-detected results for lead, potassium and zinc in all samples due to similar matrix, direction of bias is uncertain.

7. Field Duplicate Results

SDG MC21755

Samples BL-SO70(0-3)-061113D/ BL-SO70(0-3)-061113 are field duplicates and RPD of less than 50% for soils was met for all analytes except the following: Aluminum (53%), Copper (54%), Iron (62%), Lead (56%) and Zinc (60%). The positive results for Al, Cu, Fe, Pb and Zn were estimated (J) in samples BL-SO70(0-3)-061113D and BL-SO70(0-3)-061113, direction of bias uncertain. The higher of the two results were used in making field decisions.

Samples BL-SO81(0-3)-061113D/ BL-SO81(0-3)-061113 are field duplicates and RPD of less than 50% for soils was met for all analytes except the following: Arsenic (73%) and Chromium (67%). The positive results for As and Cr were estimated (J) in samples BL-SO81(0-3)-061113D and BL-SO81(0-3)-061113, direction of bias uncertain. The higher of the two results were used in making field decisions.

SDG MC21692

A field duplicate was not presented with this data set.

SDG MC21734

Samples BL-SO17(0-3)-061213/ BL-SO17(0-3)-061213D and BL-SO26(0-3)-061213/ BL-SO26(0-3)-061213D are metals field duplicates and all RPDs were calculated to be within less than the criteria of 50% for soils.

SDG MC21753

A field duplicate was not presented with this data set.

8. Overall Assessment

The metals and mercury data are acceptable for use as qualified based on the information received.

GENERAL CHEMISTRY (HEXAVALENT CHROMIUM, REDOX POTENTIAL and pH)

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
BLSO7S(0-3)-061113	MC21692-9	Soil	6/11/2013	06/17/2013 (HexCr) 06/12/2013 (Redox/pH)
BLSO82(0-3)-061113	MC21692-10	Soil	6/11/2013	06/17/2013 (HexCr) 06/12/2013 (Redox/pH)
BLSO86(0-3)-061113	MC21692-11	Soil	6/11/2013	06/17/2013 (HexCr) 06/12/2013 (Redox/pH)
BLSO90(0-3)-061113	MC21692-12	Soil	6/11/2013	06/17/2013 (HexCr) 06/12/2013 (Redox/pH)
BLSO92(0-3)-061113	MC21692-13	Soil	6/11/2013	06/17/2013 (HexCr) 06/12/2013 (Redox/pH)
BL-SO25(0-3)-061213	MC21734-1	Soil	6/12/2013	06/17/2013 (HexCr) 06/13/2013 (Redox/pH)
BL-SO34(0-3)-061213	MC21734-2	Soil	6/12/2013	06/17/2013 (HexCr) 06/13/2013 (Redox/pH)
BL-SO35(0-3)-061213	MC21734-3	Soil	6/12/2013	06/17/2013 (HexCr) 06/13/2013 (Redox/pH)
BL-SO36(0-3)-061113	MC21734-4	Soil	6/12/2013	06/17/2013 (HexCr) 06/13/2013 (Redox/pH)
BL-SO40(0-3)-061213	MC21734-5	Soil	6/12/2013	06/17/2013 (HexCr) 06/13/2013 (Redox/pH)
BL-SO40(0-3)-061213D	MC21734-6	Soil	6/12/2013	06/17/2013 (HexCr) 06/13/2013 (Redox/pH)

2. Holding Times

The samples were analyzed within the required holding time limit.

Data Validation Report
Beck's Lake Site
Accutest Laboratories
Laboratory Projects: MC21755, MC21692, MC21734, MC21753

3. Blank Results

SDGs MC21692, MC21734

All method blanks were free of target analyte contamination above the reporting limits.

4. LCS Results/Blank Spike Results (BS)

SDGs MC21692, MC21734

All LCS/BS recoveries and RPDs were within the laboratory-established QC limits.

5. MS and MSD Results

SDGs MC21692, MC21734

The hexavalent chromium MS was performed on sample 21734-4 and the recovery of insoluble Hexavalent chromium was 19.2% and the soluble spike recovery was 2.9%, below the QC limits of 75-125. Professional judgment was used in estimating all Hexavalent chromium results (J,UJ) (since all of similar matrix) due to potential low bias.

6. Laboratory Duplicate Results

SDGs MC21692, MC21734

The laboratory duplicate for Hexavalent chromium was performed on sample 21734-4 and met QC criteria of RPD less than 20.

The laboratory duplicate for Redox potential VsH₂ was performed on sample 21692-13 and met QC criteria of RPD less than 20.

The laboratory duplicate for pH was performed on sample 21671-2 which was not site specific but did meet QC criteria of RPD less than 20.

Data Validation Report
Beck's Lake Site
Accutest Laboratories
Laboratory Projects: MC21755, MC21692, MC21734, MC21753

7. Field Duplicate Results

SDG MC21692

A field duplicate was not presented with this data set.

SDG MC21734

Samples BL-SO40(0-3)-061213/ BL-SO40(0-3)-061213D are field duplicates and calculated RPDs were within QC criteria of less than 50% for soils.

8. Overall Assessment

The Hexavalent chromium, Redox potential VsH₂ and pH data are acceptable for use as qualified based on the information received.

ATTACHMENT

**ACCUTEST LABORATORIES
RESULTS SUMMARY WITH QUALIFIERS**

Report of Analysis

Page 1 of 1

Client Sample ID:	BL SO01(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-1	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	80.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3450	17	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	1.7	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.1	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	107	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.36	0.33	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.5	0.33	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	22000	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	23.7	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 4.2	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	76.5	2.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	12900	8.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	163	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	6320	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	246	1.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.33	0.039	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	14.7	3.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	530	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.83	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	0.59	0.42	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 420	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.83	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	10.8	0.83	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	214	1.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

DRE
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO02(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-2	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	76.4
Project:	Beck's Lake, South Bend, IN		

4.2
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3840	17	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.84	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	9.8	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	71.8	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.34	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.84	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	25900	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	8.6	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 4.2	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	26.5	2.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	10400	8.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	56.5	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	4730	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	223	1.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.10	0.039	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	8.7	3.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	630	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	0.85	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.42	0.42	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 420	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.84	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	10.7	0.84	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	68.6	1.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15753
 (2) Instrument QC Batch: MA15755
 (3) Prep QC Batch: MP21170
 (4) Prep QC Batch: MP21192

JRG
6/16/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO03(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-3	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	84.7
Project:	Beck's Lake, South Bend, IN		

4.3
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2690	16	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.79	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	9.6	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	65.3	4.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.32	0.32	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.67	0.32	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	38000	400	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	7.2	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 4.0	4.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	22.7	2.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	8420	7.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	58.5	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	6160	400	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	223	1.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.074	0.036	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	7.0	3.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	480	400	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.79	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.40	0.40	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 400	400	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.79	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	8.7	0.79	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	71.8	1.6	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15753
 (2) Instrument QC Batch: MA15755
 (3) Prep QC Batch: MP21170
 (4) Prep QC Batch: MP21192

DRG
6/12/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BLSO04(0-3)-061113
 Lab Sample ID: MC21692-4
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/12/13
 Percent Solids: 82.8

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4280	16	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<0.78	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	14.9	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	90.6	3.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.32	0.31	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.1	0.31	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	31200	390	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.7	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	<3.9	3.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	28.5	1.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	12400	7.8	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	77.6	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2810	390	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	206	1.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.13	0.037	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	9.6	3.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	609	390	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	1.2	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.39	0.39	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<390	390	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<0.78	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	12.0	0.78	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	83.4	1.6	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15753
- (2) Instrument QC Batch: MA15755
- (3) Prep QC Batch: MP21170
- (4) Prep QC Batch: MP21192

DRG
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BLSO05(0-3)-061113
 Lab Sample ID: MC21692-5
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/12/13
 Percent Solids: 70.8

4.5
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6180	17	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<0.85	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	11.9	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	129	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.46	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.99	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	20800	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	13.1	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	4.7	4.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	33.3	2.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	12700	8.5	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	85.7	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	4300	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	426	1.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.12	0.042	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	10.3	3.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	751	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<0.85	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.42	0.42	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<420	420	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<0.85	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	16.2	0.85	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	112	1.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

JFB
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO06(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-6	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	83.5
Project:	Beck's Lake, South Bend, IN		

4.6
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3760	14	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<0.68	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	13.0	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	118	3.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.30	0.27	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.5	0.27	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	70300	1700	mg/kg	5	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	15.7	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	4.1	3.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	47.2	1.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	11900	6.8	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	123	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	3370	340	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	379	1.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.14	0.039	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	10.2	2.7	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	511	340	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	0.74	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.34	0.34	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<340	340	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<0.68	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	10.3	0.68	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	110	1.4	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

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6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO07(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-7	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	79.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5720	16	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<0.82	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	6.0	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	80.2	4.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.37	0.33	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.50	0.33	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	13000	410	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	11.4	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	<4.1	4.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	22.2	2.0	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	11100	8.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	45.2	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2430	410	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	326	1.2	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.059	0.038	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	9.0	3.3	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	680	410	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<0.82	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.41	0.41	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<410	410	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<0.82	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	15.3	0.82	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	66.6	1.6	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15753

(2) Instrument QC Batch: MA15755

(3) Prep QC Batch: MP21170

(4) Prep QC Batch: MP21192

RL = Reporting Limit

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6/26/13

Report of Analysis

Page 1 of 1

Client Sample ID:	BLSO08(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-8	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	86.0
Project:	Beck's Lake, South Bend, IN		

8.4
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4820	15	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.76	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.2	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Barium	74.6	3.8	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.31	0.31	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.67	0.31	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Calcium	10900	380	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Chromium	10.7	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 3.8	3.8	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Copper	23.0	1.9	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Iron	8320	7.6	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Lead	74.7	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	3460	380	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Manganese	320	1.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.14	0.034	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ²
Nickel	8.7	3.1	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Potassium	702	380	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.76	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.38	0.38	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 380	380	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.76	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	12.6	0.76	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹
Zinc	74.6	J 1.5	mg/kg	1	06/13/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15753
 (2) Instrument QC Batch: MA15755
 (3) Prep QC Batch: MP21170
 (4) Prep QC Batch: MP21192

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6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BLSO7S(0-3)-061113

Lab Sample ID: MC21692-9

Matrix: SO - Soil

Date Sampled: 06/11/13

Date Received: 06/12/13

Percent Solids: 32.2

Project: Beck's Lake, South Bend, IN

4.9

4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	5.0	5	mg/kg	1	06/17/13 16:55	CF	SW846 3060A/7196A
Redox Potential Vs H2	519		mv	1	06/12/13	MA	ASTM D1498-76M
Solids, Percent	32.2		%	1	06/13/13	HS	SM21 2540 B MOD.
pH	6.8		su	1	06/12/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.10
4

Client Sample ID:	BLSO82(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21692-10	Date Received:	06/12/13
Matrix:	SO - Soil	Percent Solids:	90.5
Project:	Beck's Lake, South Bend, IN		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.43	0.43	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	515		mv	1	06/12/13	MA	ASTM D1498-76M
Solids, Percent	90.5		%	1	06/13/13	HS	SM21 2540 B MOD.
pH	7.9		su	1	06/12/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BLSO86(0-3)-061113

Lab Sample ID: MC21692-11

Matrix: SO - Soil

Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13

Date Received: 06/12/13

Percent Solids: 96.3

4.11
4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.4	5	0.41	mg/kg	1	06/17/13 17:05	CF SW846 3060A/7196A
Redox Potential Vs H2	514			mv	1	06/12/13	MA ASTM D1498-76M
Solids, Percent	96.3			%	1	06/13/13	HS SM21 2540 B MOD.
pH	8.0			su	1	06/12/13	MA SW846 9045D

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BLSO90(0-3)-061113

Lab Sample ID: MC21692-12

Matrix: SO - Soil

Date Sampled: 06/11/13

Date Received: 06/12/13

Percent Solids: 91.7

Project: Beck's Lake, South Bend, IN

4.12
4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	<0.43	0.43	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	511		mv	1	06/12/13	MA	ASTM D1498-76M
Solids, Percent	91.7		%	1	06/13/13	HS	SM21 2540 B MOD.
pH	8.0		su	1	06/12/13	MA	SW846 9045D

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BLSO92(0-3)-061113
Lab Sample ID: MC21692-13
Matrix: SO - Soil

Date Sampled: 06/11/13
Date Received: 06/12/13
Percent Solids: 89.5

Project: Beck's Lake, South Bend, IN

4.13

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General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.45	0.45	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	470		mv	1	06/12/13	MA	ASTM D1498-76M
Solids, Percent	89.5		%	1	06/13/13	HS	SM21 2540 B MOD.
pH	7.9		su	1	06/12/13	MA	SW846 9045D

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO25(0-3)-061213
 Lab Sample ID: MC21734-1
 Matrix: SO - Soil

Date Sampled: 06/12/13
 Date Received: 06/13/13
 Percent Solids: 89.4

Project: Beck's Lake, South Bend, IN

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.44	0.44	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	499		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	89.4		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	6.4		su	1	06/13/13	MA	SW846 9045D

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6/27/13

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO34(0-3)-061213

Lab Sample ID: MC21734-2

Matrix: SO - Soil

Date Sampled: 06/12/13

Date Received: 06/13/13

Percent Solids: 84.2

Project: Beck's Lake, South Bend, IN

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	0.47	5	0.47	mg/kg	1	06/17/13 17:05	CF SW846 3060A/7196A
Redox Potential Vs H2	464		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	84.2		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	7.2		su	1	06/13/13	MA	SW846 9045D

RL = Reporting Limit

4.2

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Beck's Lake

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO35(0-3)-061213

Lab Sample ID: MC21734-3

Matrix: SO - Soil

Date Sampled: 06/12/13

Date Received: 06/13/13

Percent Solids: 77.0

Project: Beck's Lake, South Bend, IN

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.5	0.51	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	505		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	77		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	7.5		su	1	06/13/13	MA	SW846 9045D

RL = Reporting Limit

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6/15/13



21 of 91

MC21734

LABORATORIES

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO36(0-3)-061213

Lab Sample ID: MC21734-4

Matrix: SO - Soil

Date Sampled: 06/12/13

Date Received: 06/13/13

Percent Solids: 82.7

Project: Beck's Lake, South Bend, IN

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.6	5	mg/kg	1	06/17/13 16:55	CF	SW846 3060A/7196A
Redox Potential Vs H2	491		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	82.7		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	7.0		su	1	06/13/13	MA	SW846 9045D

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6/17/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO40(0-3)-061213

Lab Sample ID: MC21734-5

Matrix: SO - Soil

Date Sampled: 06/12/13

Date Received: 06/13/13

Percent Solids: 92.0

Project: Beck's Lake, South Bend, IN

4.5

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General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.43	0.43	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	502		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	92		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	8.0		su	1	06/13/13	MA	SW846 9045D

DRB
6/27/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO40(0-3)-061213D
 Lab Sample ID: MC21734-6
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

4.6

4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	<0.42	0.42	mg/kg	1	06/17/13 17:05	CF	SW846 3060A/7196A
Redox Potential Vs H2	463		mv	1	06/13/13	MC	ASTM D1498-76M
Solids, Percent	93.4		%	1	06/14/13	HS	SM21 2540 B MOD.
pH	8.1		su	1	06/13/13	MA	SW846 9045D

RL = Reporting Limit

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6/13/13

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO17(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-7	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	88.9
Project:	Beck's Lake, South Bend, IN		

4.7
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6020	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	<0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	4.1	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	73.9	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	<0.39	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.41	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2000	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	13.9	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	<4.9	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	23.6	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	9890	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	54.6	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1240	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	325	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.064	0.033	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ¹
Nickel	11.2	3.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	792	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	<0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	<0.49	0.49	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	<490	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	<0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	15.9	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	67.0	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15755

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21192

DCE
6/27/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.8
4

Client Sample ID:	BL-SO17(0-3)-061213D	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-8	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	90.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5460	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	3.8	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	69.7	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.42	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	1910	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	13.1	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	23.2	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	10600	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	56.2	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1140	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	303	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.047	0.035	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ¹
Nickel	11.1	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	732	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	14.9	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	66.8	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15755
 (2) Instrument QC Batch: MA15772
 (3) Prep QC Batch: MP21186
 (4) Prep QC Batch: MP21192

DSG
6/27/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4

Client Sample ID:	BL-SO18(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-9	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	87.5
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6280	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	4.3	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	89.8	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.42	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2540	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	12.4	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 4.9	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	24.4	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	11300	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	46.5	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1330	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	380	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.061	0.037	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ¹
Nickel	10.9	3.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	861	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.49	0.49	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 490	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	17.1	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	77.1	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15755

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21192

D&E
6/13/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.10
4

Client Sample ID:	BL-SO19(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-10	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	88.9
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6330	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	5.6	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	93.0	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.78	0.39	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2260	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	24.6	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	5.1	4.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	57.4	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	13800	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	77.2	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1300	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	367	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.082	0.036	mg/kg	1	06/17/13	06/19/13	SA	SW846 7471B ¹
Nickel	27.3	3.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	803	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.49	0.49	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 490	490	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	17.2	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	135	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15755
- (2) Instrument QC Batch: MA15772
- (3) Prep QC Batch: MP21186
- (4) Prep QC Batch: MP21192

DPO
6/13/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO20(0-3)-061213

Lab Sample ID: MC21734-11

Matrix: SO - Soil

Date Sampled: 06/12/13

Date Received: 06/13/13

Percent Solids: 86.0

Project: Beck's Lake, South Bend, IN

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method	
Aluminum	6780	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Antimony	< 1.0	WT	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Arsenic	5.1	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Barium	117	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Beryllium	0.44	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Cadmium	0.98	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Calcium	3020	J	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	20.5	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Cobalt	5.6	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Copper	62.2	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Iron	12900	J	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	92.2	J	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1470	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Manganese	414	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Mercury	0.091	0.035	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹	
Nickel	21.0	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Potassium	938	J	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Vanadium	19.7	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²	
Zinc	141	J	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

DRG
6/13/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.12
4

Client Sample ID: BL-SO21(0-3)-061213

Lab Sample ID: MC21734-12

Matrix: SO - Soil

Date Sampled: 06/12/13

Date Received: 06/13/13

Percent Solids: 88.7

Project: Beck's Lake, South Bend, IN

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	8100	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	<1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	5.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	142	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	0.43	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	1.0	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2960	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	18.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	5.8	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	38.4	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	14100	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	107	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1710	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	416	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.091	0.035	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	14.4	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	989	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	20.1	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	217	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

DRB
6/10/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

413

4

Client Sample ID:	BL-SO22(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-13	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	88.6
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6420	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	4.5	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	99.1	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.73	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	3590	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	16.7	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	41.8	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	11000	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	76.0	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1630	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	336	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.12	0.036	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	15.2	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	842	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	17.3	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	118	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15768
 (2) Instrument QC Batch: MA15772
 (3) Prep QC Batch: MP21186
 (4) Prep QC Batch: MP21212

DRB
6/6/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

414
4

Client Sample ID:	BL-SO23(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-14	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	91.8
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6940	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	<0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	3.8	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	87.5	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	<0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.63	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	2630	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	21.9	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	5.1	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	34.9	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	11700	9.9	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	117	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	2390	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	269	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.22	0.034	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	15.2	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	911	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	<0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	<500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	<0.99	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	17.7	0.99	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	143	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15768

(2) Instrument QC Batch: MA15772

(3) Prep QC Batch: MP21186

(4) Prep QC Batch: MP21212

DRB
6/12/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

415
4

Client Sample ID:	BL-SO24(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-15	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	92.5
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5910	21	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	4.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	80.1	5.1	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.41	0.41	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	0.42	0.41	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	3080	510	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	11.1	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 5.1	5.1	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	18.1	2.6	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	10700	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	61.7	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1650	510	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	309	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.060	0.033	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	9.1	4.1	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	840	510	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.51	0.51	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 510	510	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	16.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	88.3	2.1	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15768
 (2) Instrument QC Batch: MA15772
 (3) Prep QC Batch: MP21186
 (4) Prep QC Batch: MP21212

DJB
6/27/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

416
4

Client Sample ID:	BL-SO26(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-16	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	83.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4050	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	1.2	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	7.7	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	72.9	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	<0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	1.1	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	5040	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	15.3	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	<5.0	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	30.3	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	12500	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	151	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1360	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	199	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.096	0.038	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	8.6	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	754	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	<500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	13.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	144	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15768
 (2) Instrument QC Batch: MA15772
 (3) Prep QC Batch: MP21186
 (4) Prep QC Batch: MP21212

JRG
6/18/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO26(0-3)-061213D	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-17	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	81.8
Project:	Beck's Lake, South Bend, IN		

4.17
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4040	20	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Arsenic	7.5	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Barium	71.2	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cadmium	1.1	0.40	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Calcium	4800	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Chromium	14.7	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Copper	29.6	2.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Iron	12300	10	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Lead	144	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Magnesium	1310	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Manganese	193	1.5	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Mercury	0.12	0.039	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ¹
Nickel	8.2	4.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Potassium	744	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Vanadium	13.4	1.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²
Zinc	144	2.0	mg/kg	1	06/17/13	06/19/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15768
 (2) Instrument QC Batch: MA15772
 (3) Prep QC Batch: MP21186
 (4) Prep QC Batch: MP21212

DRG
6/17/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.18
4

Client Sample ID:	BL-SO27(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-18	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	82.7
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6030	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	5.7	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	74.5	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.49	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	6300	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	11.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	16.0	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10400	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	46.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1640	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	388	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.089	0.037	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²
Nickel	8.5	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1000	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	15.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	65.8	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
 (2) Instrument QC Batch: MA15768
 (3) Prep QC Batch: MP21187
 (4) Prep QC Batch: MP21212

DFO
6/18/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO28(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-19	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	83.1
Project:	Beck's Lake, South Bend, IN		

4.19
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5050	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	1.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	7.1	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	64.6	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	< 0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.70	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	5640	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	14.3	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	< 5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	23.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10800	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	78.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1770	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	280	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.084	0.038	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²
Nickel	8.8	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	885	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	14.6	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	93.8	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
 (2) Instrument QC Batch: MA15768
 (3) Prep QC Batch: MP21187
 (4) Prep QC Batch: MP21212

JLG
6/10/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.20
4

Client Sample ID:	BL-SO29(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-20	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	83.2
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7100	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<0.98	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	5.9	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	86.9	4.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	<0.39	0.39	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.44	0.39	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	4170	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.2	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.0	4.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	14.8	2.4	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10200	9.8	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	31.4	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1820	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	487	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.057	0.036	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²
Nickel	9.7	3.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1230	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<0.98	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.49	0.49	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<490	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<0.98	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	18.2	0.98	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	63.0	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15768

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21212

DRB
6/13/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

421

4

Client Sample ID: BL-SO30(0-3)-061213

Lab Sample ID: MC21734-21

Matrix: SO - Soil

Date Sampled: 06/12/13

Date Received: 06/13/13

Percent Solids: 81.6

Project: Beck's Lake, South Bend, IN

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method	
Aluminum	5960	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Antimony	<1.0	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Arsenic	6.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Barium	82.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Beryllium	<0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Cadmium	0.63	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Calcium	6320	J	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.8	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Cobalt	<5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Copper	22.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Iron	10500	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Lead	56.6	J	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1780	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Manganese	354	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Mercury	0.11	0.036	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²	
Nickel	9.4	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Potassium	960	J	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Vanadium	16.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹	
Zinc	85.3	J	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15768

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21212

DFO
6/6/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

422
4

Client Sample ID:	BL-SO31(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-22	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	82.4
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7620	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	6.3	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	96.2	4.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.39	0.39	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.42	0.39	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	5570	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.2	4.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	14.3	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10600	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	24.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1920	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	552	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.061	0.037	mg/kg	1	06/20/13	06/20/13	SA	SW846 7471B ²
Nickel	10.3	3.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1080	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.49	0.49	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 490	490	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	19.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	58.4	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15768

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21212

DRB
6/18/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.23
4

Client Sample ID:	BL-SO32(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21734-23	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	81.5
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4780	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<1.0	WT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.5	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	77.7	5.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	<0.41	0.41	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.59	0.41	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	19400	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	10.9	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	<5.1	5.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	19.1	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	11700	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	45.8	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2290	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	382	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.065	0.039	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	7.7	4.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	823	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.51	0.51	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<510	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	12.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	66.5	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

DRB
6/13/13

RL = Reporting Limit

Report of Analysis

424
4

Client Sample ID: BL-SO33(0-3)-061213
 Lab Sample ID: MC21734-24
 Matrix: SO - Soil

Date Sampled: 06/12/13
 Date Received: 06/13/13
 Percent Solids: 82.1

Project: Beck's Lake, South Bend, IN

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6290	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	6.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	79.5	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	<0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	<0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	10300	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	10.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	<5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	12.7	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	9770	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	25.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	1940	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	428	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.044	0.037	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	8.9	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	962	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	16.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	52.8	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
- (2) Instrument QC Batch: MA15779
- (3) Prep QC Batch: MP21187
- (4) Prep QC Batch: MP21224

DRL
6/21/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO88(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-1	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	93.7
Project:	Beck's Lake, South Bend, IN		

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4250	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<1.0 <i>uj</i>	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	5.9	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	31.5	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	<0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	<0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	27800 <i>J</i>	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	10.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	<5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	12.5	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10200 <i>J</i>	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	25.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	8270	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	395	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.052	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	8.9	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	602 <i>J</i>	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	15.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	81.3 <i>J</i>	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
- (2) Instrument QC Batch: MA15779
- (3) Prep QC Batch: MP21187
- (4) Prep QC Batch: MP21224

DRG
6/27/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO89(0-3)-061113
 Lab Sample ID: MC21753-2
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/13/13
 Percent Solids: 85.7

4.2

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3550	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	9.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	84.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	<0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.9	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	30300	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	46.2	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	<5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	52.3	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	11700	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	75.9	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	6610	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	230	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.19	0.037	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	15.5	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	541	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	11.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	117	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
- (2) Instrument QC Batch: MA15779
- (3) Prep QC Batch: MP21187
- (4) Prep QC Batch: MP21224

DRG
6/18/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO91(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-3	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	89.2
Project:	Beck's Lake, South Bend, IN		

4.3

4

Metals Analysis

Validation Data

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3040	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<0.99	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.1	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	51.8	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	<0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.52	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	34400	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	6.6	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	<5.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	14.9	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	8640	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	49.8	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	5050	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	263	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.072	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	7.1	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	<500	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	10.6	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	67.2	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
 (2) Instrument QC Batch: MA15779
 (3) Prep QC Batch: MP21187
 (4) Prep QC Batch: MP21224

DFB
6/8/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO09(0-3)-061113
 Lab Sample ID: MC21753-4
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/13/13
 Percent Solids: 84.8

4.4

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6370	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<0.99	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	6.0	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	35.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	<0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.41	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	15900	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	12.5	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.2	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	17.1	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10900	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	26.2	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	9950	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	366	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.055	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	12.6	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1280	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	16.0	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	54.9	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
- (2) Instrument QC Batch: MA15779
- (3) Prep QC Batch: MP21187
- (4) Prep QC Batch: MP21224

DRB
6/18/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO10(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-5	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	81.7
Project:	Beck's Lake, South Bend, IN		

4.5

4

Metals Analysis

valdated

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	11800	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<1.0	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.5	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	109	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.54	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.71	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	10900	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	15.9	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	6.0	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	24.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	14200	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	54.0	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	5030	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	605	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.10	0.038	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	14.7	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1220	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	23.1	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	93.1	J	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

*DRG
6/13/13*

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO11(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-6	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	84.0
Project:	Beck's Lake, South Bend, IN		

4.6
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6590	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	5.5	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	39.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	<0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	16400	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	11.9	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.1	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	18.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	10900	9.9	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	32.0	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	10600	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	352	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.072	0.038	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	12.5	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1280	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<0.99	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	15.2	0.99	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	68.6	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
 (2) Instrument QC Batch: MA15779
 (3) Prep QC Batch: MP21187
 (4) Prep QC Batch: MP21224

DFO
6/21/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO12(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-7	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	82.7
Project:	Beck's Lake, South Bend, IN		

4.7

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7710	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<1.0	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.2	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	63.8	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.40	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.67	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	20500	T	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	13.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.7	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	21.2	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	12200	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	41.6	T	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	9950	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	454	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.10	0.037	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	13.8	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1220	T	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	16.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	71.8	T	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

(1) Instrument QC Batch: MA15757

(2) Instrument QC Batch: MA15779

(3) Prep QC Batch: MP21187

(4) Prep QC Batch: MP21224

Dnb
6/19/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO13(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-8	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	81.4
Project:	Beck's Lake, South Bend, IN		

4.8

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	9290	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<1.0	UT 1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	8.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	146	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.50	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	0.91	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	14500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	16.8	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	6.4	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	34.7	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	14300	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	72.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	3650	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	808	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.12	0.038	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	15.7	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1260	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	19.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	115	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
 (2) Instrument QC Batch: MA15779
 (3) Prep QC Batch: MP21187
 (4) Prep QC Batch: MP21224

DCE
6/6/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO14(0-3)-061113
 Lab Sample ID: MC21753-9
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/13/13
 Percent Solids: 79.0

6.9

4

Metals Analysis

*Validation
Initial*

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	9580	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	9.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	146	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.59	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	2.5	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	20800	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	19.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	6.4	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	46.4	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	15400	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	104	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	3490	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	761	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.13	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	17.2	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1170	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	20.6	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	133	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
- (2) Instrument QC Batch: MA15779
- (3) Prep QC Batch: MP21187
- (4) Prep QC Batch: MP21224

*DPC
6/22/13*

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO15(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-10	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	78.4
Project:	Beck's Lake, South Bend, IN		

4.10
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	9730	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	<1.0	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	7.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	202	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.50	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	2.1	0.40	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	21700	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	20.3	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	6.2	5.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	44.8	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	14500	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	161	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2270	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	898	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.14	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	17.4	4.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1280	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	<0.50	0.50	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	<500	500	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	<1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	20.2	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	181	UT	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
 (2) Instrument QC Batch: MA15779
 (3) Prep QC Batch: MP21187
 (4) Prep QC Batch: MP21224

DRG
6/15/2013

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO16(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21753-11	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	75.9
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

*Validatory
Review*

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	8290	20	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Antimony	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Arsenic	7.5	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Barium	182	5.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Beryllium	0.45	0.41	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cadmium	1.5	0.41	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Calcium	38300	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Chromium	17.1	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Cobalt	5.5	5.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Copper	43.4	2.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Iron	13600	10	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Lead	116	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Magnesium	2260	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Manganese	875	1.5	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Mercury	0.22	0.037	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ²
Nickel	25.8	4.1	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Potassium	1120	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Selenium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Silver	< 0.51	0.51	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Sodium	< 510	510	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Thallium	< 1.0	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Vanadium	17.4	1.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹
Zinc	145	2.0	mg/kg	1	06/17/13	06/17/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15757
- (2) Instrument QC Batch: MA15779
- (3) Prep QC Batch: MP21187
- (4) Prep QC Batch: MP21224

*DJB
6/22/13*

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO37(0-3)-061213

Lab Sample ID: MC21755-1

Matrix: SO - Soil

Date Sampled: 06/12/13

Date Received: 06/13/13

Percent Solids: 95.0

Project: Beck's Lake, South Bend, IN

L4

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5480	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<1.0	0.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.2	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	24.3	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	<0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	37900	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.8	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	12000	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	13.5	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	19400	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	297	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	<0.032	0.032	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.4	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	980	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	35.0	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15779

(2) Instrument QC Batch: MA15781

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21224

DRB
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO38(0-3)-061213

Lab Sample ID: MC21755-2

Matrix: SO - Soil

Date Sampled: 06/12/13

Date Received: 06/13/13

Percent Solids: 93.7

Project: Beck's Lake, South Bend, IN

4.2

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5860	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.3	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	22.3	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	<0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	34800	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.3	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	11900	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	9.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	17500	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	302	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	<0.032	0.032	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.8	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	1040	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	31.2	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15779

(2) Instrument QC Batch: MA15781

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21224

DRB
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.3

4

Client Sample ID:	BL-SO39(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21755-3	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	94.4
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6070	20	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Antimony	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	23.8	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	<0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	33200	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	10.2	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	12100	10	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Lead	13.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	16800	500	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Manganese	302	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	<0.034	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.2	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	1040	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	13.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	34.7	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15779
- (2) Instrument QC Batch: MA15781
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21224

DRB
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO41(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21755-4	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	85.0
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5990	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	1.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	5.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	139	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	1.9	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6180	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	20.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	52.5	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	13000	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	181	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	2070	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	298	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.12	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	12.7	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	714	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	15.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	191	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15779
 (2) Instrument QC Batch: MA15781
 (3) Prep QC Batch: MP21202
 (4) Prep QC Batch: MP21224

DJB
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO42(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21755-5	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	89.5
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4280	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.3	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	64.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.76	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6570	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	24.9	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	9890	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	59.8	5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	2880	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	259	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.057	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	8.8	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	513	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.4	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	80.8	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15779

(2) Instrument QC Batch: MA15781

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21224

DVB
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO43(0-3)-061213
 Lab Sample ID: MC21755-6
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/12/13
 Date Received: 06/13/13
 Percent Solids: 87.2

46
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4380	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	5.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	57.7	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.62	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	9590	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.3	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	21.2	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	11200	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	96.3	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	4750	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	216	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.068	0.036	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	8.7	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	566	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	78.5	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15779
- (2) Instrument QC Batch: MA15781
- (3) Prep QC Batch: MP21202
- (4) Prep QC Batch: MP21224

DRB
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO44(0-3)-061213	Date Sampled:	06/12/13
Lab Sample ID:	MC21755-7	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	86.8
Project:	Beck's Lake, South Bend, IN		

47
4

Metals Analysis

*Validation
Qualification*

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4920	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<0.99	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	4.6	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	66.6	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.48	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	2930	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	10.6	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	20.8	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	10200	9.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	49.7	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1260	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	200	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.059	0.035	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	8.7	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	579	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<0.99	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<500	500	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	<0.99	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	13.2	0.99	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	125	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15779
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21224

*DPL
6/13/13/B*

RL = Reporting Limit

Report of Analysis

4.8

4

Client Sample ID:	BL-SO70(0-3)-061113D	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-8	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	35.9
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	629	5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<1.0	0.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	36.8	5.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.42	0.42	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	<0.42	0.42	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6840	520	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	1.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.2	5.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	4.9	2.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	1050	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	4.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	798	520	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	143	1.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	<0.057	0.057	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	<4.2	4.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	<520	0.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.52	0.52	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<520	520	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	1.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	18.5	5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
 (2) Instrument QC Batch: MA15784
 (3) Instrument QC Batch: MA15788
 (4) Prep QC Batch: MP21202
 (5) Prep QC Batch: MP21225

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6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO70(0-3)-061113
 Lab Sample ID: MC21755-9
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/13/13
 Percent Solids: 43.5

4.9

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1080	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	1.4	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	39.5	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.46	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	7260	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	2.9	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<4.9	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	8.5	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	1980	9.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	8.4	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1180	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	159	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	<0.048	0.048	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	<3.9	3.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	<490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.49	0.49	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<490	490	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	<0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	2.7	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	34.3	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21225

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RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO71(0-3)-061113

Lab Sample ID: MC21755-10

Matrix: SO - Soil

Date Sampled: 06/11/13

Date Received: 06/13/13

Percent Solids: 41.1

Project: Beck's Lake, South Bend, IN

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1890	21	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	3.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	37.0	5.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.42	0.42	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.72	0.42	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	116000	5200	mg/kg	10	06/18/13	06/24/13	EAL	SW846 6010C ³
Chromium	4.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.2	5.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	14.5	2.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	5800	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	11.5	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	66200	520	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	200	1.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	< 0.051	0.051	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	6.0	4.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	621	520	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.52	0.52	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 520	520	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	5.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	45.0	2.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Instrument QC Batch: MA15788

(4) Prep QC Batch: MP21202

(5) Prep QC Batch: MP21225

RL = Reporting Limit

JULY 2013

Report of Analysis

Page 1 of 1

4.11

4

Client Sample ID: BL-SO72(0-3)-061113
 Lab Sample ID: MC21755-11
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/13/13
 Percent Solids: 52.2

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1330	16	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 0.82 ^{UJ}	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	1.6	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	34.9	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.33	0.33	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	1.1	0.33	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6610 ^J	410	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	3.7	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 4.1	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	7.6	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	2650	8.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	10.5 ^J	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1220 ^J	410	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	135	1.2	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.045	0.040	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	< 3.3	3.3	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 410 ^{UJ}	410	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 0.82	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 410	410	mg/kg	1	06/18/13	06/24/13	EAL	SW846 6010C ³
Thallium	< 0.82	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	3.4	0.82	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	33.8 ^J	1.6	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21225

DRE
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.12
4

Client Sample ID: BL-SO73(0-3)-061113

Lab Sample ID: MC21755-12

Matrix: SO - Soil

Date Sampled: 06/11/13

Date Received: 06/13/13

Percent Solids: 43.5

Project: Beck's Lake, South Bend, IN

Metals Analysis

Validation Qual

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1730	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<1.0 <i>WT</i>	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	3.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	45.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	0.71	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	8510 <i>WT</i>	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	6.3 <i>WT</i>	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	17.3	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	3040 <i>WT</i>	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	13.9 <i>WT</i>	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1350 <i>WT</i>	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	196	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.059	0.047	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	<4.0	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	<500 <i>WT</i>	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	4.4	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	38.3 <i>WT</i>	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21225

*DRB
6/26/13*

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.13

4

Client Sample ID:	BL-SO74(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-13	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	43.9
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1230	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	1.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	38.8	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	1.4	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	6240	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	4.0	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 4.9	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.0	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	2210	9.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	8.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	1080	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	120	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.061	0.048	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	< 3.9	3.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.49	0.49	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	3.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	29.9	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
 (2) Instrument QC Batch: MA15784
 (3) Prep QC Batch: MP21202
 (4) Prep QC Batch: MP21225

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6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO76(0-3)-061113
 Lab Sample ID: MC21755-14
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/13/13
 Percent Solids: 95.5

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4810	19	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<0.97	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	5.1	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	28.3	4.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	<0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	12000	480	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	8.6	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<4.8	4.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.2	2.4	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	10000	9.7	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	15.4	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	5360	480	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	305	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.042	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	8.2	3.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	515	480	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<0.97	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.48	0.48	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<480	480	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<0.97	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.0	0.97	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	51.5	1.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Prep QC Batch: MP21202
- (4) Prep QC Batch: MP21225

DCL
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	BL-SO77(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-15	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	94.4
Project:	Beck's Lake, South Bend, IN		

G15
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Metals Analysis

Validation

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4130	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	< 1.0 <i>WT</i>	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	5.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	27.1	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	< 0.40	0.40	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	27600 <i>J</i>	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	11.2	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	< 5.0	5.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	9.8	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	9550	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	28.8 <i>J</i>	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	6760 <i>J</i>	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	302	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.058	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	7.8	4.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	< 500 <i>WT</i>	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	< 0.50	0.50	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	< 500	500	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	< 1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	10.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	49.8 <i>J</i>	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15781
- (3) Prep QC Batch: MP21202
- (4) Prep QC Batch: MP21225

*Dale
6/26/13*

RL = Reporting Limit

Report of Analysis

4

Client Sample ID: BL-SO78(0-3)-061113

Lab Sample ID: MC21755-16

Matrix: SO - Soil

Date Sampled: 06/11/13

Date Received: 06/13/13

Percent Solids: 49.4

Project: Beck's Lake, South Bend, IN

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	292	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<1.0 <i>WT</i>	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	26.9	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	<0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	2440 <i>JT</i>	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	1.2 <i>JT</i>	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	3.0	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	664 <i>JT</i>	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	3.2 <i>JT</i>	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	573 <i>JT</i>	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	80.2	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	<0.045	0.045	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	<4.1	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	<510 <i>WT</i>	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	18.8 <i>JT</i>	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

(1) Instrument QC Batch: MA15780

(2) Instrument QC Batch: MA15784

(3) Prep QC Batch: MP21202

(4) Prep QC Batch: MP21225

*DCB
6/26/13*

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO79(0-3)-061113

Date Sampled: 06/11/13

Lab Sample ID: MC21755-17

Date Received: 06/13/13

Matrix: SO - Soil

Percent Solids: 97.0

Project: Beck's Lake, South Bend, IN

4/17
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2730	19	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<0.94	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	3.6	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	19.3	4.7	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.37	0.37	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	<0.37	0.37	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	126000	4700	mg/kg	10	06/18/13	06/24/13	EAL	SW846 6010C ³
Chromium	5.9	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<4.7	4.7	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	6.2	2.3	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	13300	9.4	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	13.8	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	4940	470	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	300	1.4	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.053	0.032	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	5.3	3.7	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	569	470	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<0.94	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.47	0.47	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<470	470	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<0.94	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	7.8	0.94	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	41.3	1.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21225

DRG
6/26/13

RL = Reporting Limit

Report of Analysis

4.18
4

Client Sample ID:	BL-SO80(0-3)-061113	Date Sampled:	06/11/13
Lab Sample ID:	MC21755-18	Date Received:	06/13/13
Matrix:	SO - Soil	Percent Solids:	94.9
Project:	Beck's Lake, South Bend, IN		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2550	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	3.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	18.9	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	<0.39	0.39	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	68500	2500	mg/kg	5	06/18/13	06/24/13	EAL	SW846 6010C ³
Chromium	5.6	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<4.9	4.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	6.7	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	6390	9.8	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	15.9	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	24300	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	239	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.052	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	5.7	3.9	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	<490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.49	0.49	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<490	490	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<0.98	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	7.2	0.98	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	38.9	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Instrument QC Batch: MA15788
- (4) Prep QC Batch: MP21202
- (5) Prep QC Batch: MP21225

DPE
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO81(0-3)-061113
 Lab Sample ID: MC21755-19
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/13/13
 Percent Solids: 90.3

419

4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3570	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	29.6	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	32.9	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	3.5	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	31900	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	34.9	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	30.1	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	14300	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	26.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	16800	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	444	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.047	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.4	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	661	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.1	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	77.2	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Prep QC Batch: MP21202
- (4) Prep QC Batch: MP21225

DPO
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

420
4

Client Sample ID: BL-SO81(0-3)-061113D
 Lab Sample ID: MC21755-20
 Matrix: SO - Soil
 Project: Beck's Lake, South Bend, IN

Date Sampled: 06/11/13
 Date Received: 06/13/13
 Percent Solids: 92.9

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3790	20	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Antimony	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Arsenic	13.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Barium	33.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Beryllium	<0.41	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cadmium	2.3	0.41	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Calcium	34000	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Chromium	17.4	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Cobalt	<5.1	5.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Copper	26.1	2.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Iron	12200	10	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Lead	28.7	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Magnesium	17800	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Manganese	422	1.5	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Mercury	0.053	0.034	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ¹
Nickel	11.0	4.1	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Potassium	707	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Selenium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Silver	<0.51	0.51	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Sodium	<510	510	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Thallium	<1.0	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Vanadium	12.8	1.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²
Zinc	75.1	2.0	mg/kg	1	06/18/13	06/21/13	EAL	SW846 6010C ²

- (1) Instrument QC Batch: MA15780
- (2) Instrument QC Batch: MA15784
- (3) Prep QC Batch: MP21202
- (4) Prep QC Batch: MP21225

DSD
6/26/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO83(0-3)-061113

Lab Sample ID: MC21755-21

Matrix: SO - Soil

Date Sampled: 06/11/13

Date Received: 06/13/13

Percent Solids: 93.0

Project: Beck's Lake, South Bend, IN

4.2.1
4

Metals Analysis

Analyte	Result	Validation by RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3580	19	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Antimony	<0.93	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Arsenic	6.2	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Barium	28.2	4.6	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Beryllium	<0.37	0.37	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Cadmium	<0.37	0.37	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Calcium	36900	460	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Chromium	9.0	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Cobalt	<4.6	4.6	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Copper	15.0	2.3	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Iron	11300	9.3	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Lead	23.9	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Magnesium	14200	460	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Manganese	481	1.4	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Mercury	0.040	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ³
Nickel	8.1	3.7	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Potassium	590	460	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Selenium	<0.93	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Silver	<0.46	0.46	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ²
Sodium	<460	460	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Thallium	<0.93	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Vanadium	10.7	0.93	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Zinc	106	1.9	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15773
- (2) Instrument QC Batch: MA15774
- (3) Instrument QC Batch: MA15780
- (4) Prep QC Batch: MP21205
- (5) Prep QC Batch: MP21225

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO84(0-3)-061113

Date Sampled: 06/11/13

Lab Sample ID: MC21755-22

Date Received: 06/13/13

Matrix: SO - Soil

Percent Solids: 94.2

Project: Beck's Lake, South Bend, IN

4.22
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5270	19	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Antimony	<0.94	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Arsenic	4.9	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Barium	35.9	4.7	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Beryllium	<0.38	0.38	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Cadmium	<0.38	0.38	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Calcium	14800	470	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Chromium	7.8	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Cobalt	<4.7	4.7	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Copper	8.2	2.3	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Iron	8300	9.4	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Lead	11.9	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Magnesium	8450	470	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Manganese	287	1.4	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Mercury	<0.033	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ³
Nickel	7.3	3.8	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Potassium	515	470	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Selenium	<0.94	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Silver	<0.47	0.47	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ²
Sodium	<470	470	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Thallium	<0.94	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Vanadium	11.2	0.94	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹
Zinc	40.2	1.9	mg/kg	1	06/19/13	06/19/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15773
- (2) Instrument QC Batch: MA15774
- (3) Instrument QC Batch: MA15780
- (4) Prep QC Batch: MP21205
- (5) Prep QC Batch: MP21225

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6/12/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BL-SO85(0-3)-061113

Date Sampled: 06/11/13

Lab Sample ID: MC21755-23

Date Received: 06/13/13

Matrix: SO - Soil

Percent Solids: 95.5

Project: Beck's Lake, South Bend, IN

4.23
4

Metals Analysis

Validation
Initial

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4480	18	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Antimony	<0.90	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Arsenic	5.8	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Barium	27.3	4.5	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Beryllium	<0.36	0.36	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Cadmium	<0.36	0.36	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Calcium	16400	450	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Chromium	6.6	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Cobalt	<4.5	4.5	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Copper	9.9	2.3	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Iron	10600	9.0	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Lead	11.6	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Magnesium	7750	450	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Manganese	339	1.4	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Mercury	0.037	0.032	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ³
Nickel	8.1	3.6	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Potassium	494	450	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Selenium	<0.90	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Silver	<0.45	0.45	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ²
Sodium	<450	450	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Thallium	<0.90	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Vanadium	11.7	0.90	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Zinc	56.3	1.8	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15773
- (2) Instrument QC Batch: MA15774
- (3) Instrument QC Batch: MA15780
- (4) Prep QC Batch: MP21205
- (5) Prep QC Batch: MP21225

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6/18/13

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.24
4

Client Sample ID: BL-SO87(0-3)-061113

Lab Sample ID: MC21755-24

Matrix: SO - Soil

Date Sampled: 06/11/13

Date Received: 06/13/13

Percent Solids: 95.7

Project: Beck's Lake, South Bend, IN

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4800	19	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Antimony	<0.93	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Arsenic	4.6	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Barium	25.7	4.7	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Beryllium	<0.37	0.37	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Cadmium	<0.37	0.37	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Calcium	25600	470	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Chromium	13.6	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Cobalt	<4.7	4.7	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Copper	8.6	2.3	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Iron	10900	9.3	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Lead	19.5	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Magnesium	10600	470	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Manganese	298	1.4	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Mercury	0.049	0.033	mg/kg	1	06/21/13	06/24/13	SA	SW846 7471B ³
Nickel	9.4	3.7	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Potassium	<470	470	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Selenium	<0.93	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Silver	<0.47	0.47	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ²
Sodium	<470	470	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Thallium	<0.93	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Vanadium	14.0	0.93	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹
Zinc	54.4	1.9	mg/kg	1	06/19/13	06/20/13	EAL	SW846 6010C ¹

- (1) Instrument QC Batch: MA15773
- (2) Instrument QC Batch: MA15774
- (3) Instrument QC Batch: MA15780
- (4) Prep QC Batch: MP21205
- (5) Prep QC Batch: MP21225

Jack
6/26/13

RL = Reporting Limit